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Title of Dissertation: Beauty is in the Eyes of the Beholder: Definitions of Attractiveness Among African American and Caucasian Women

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ABSTRACT

Title of Dissertation: Beauty is in the Eyes of the Beholder: Definitions of Attractiveness Among African American and Caucasian Women

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Obesity is a national epidemic affecting more than 127 million people (CDC, 2003). Nearly 78% of African American women in the U.S. are currently overweight or obese. Despite the negative health consequences associated with obesity, culturally-mediated views of attractiveness and body image may serve as risk factors for obesity among certain ethnic groups. The traditional body image literature has been constrained by entirely focusing on body thinness as the only component of attractiveness.

There is evidence to suggest that some African American women hold a multi-component definition of attractiveness (Harris, 1990, Parker, 1995). A culturally sensitive silhouette assessment method is needed to assess these components. The current study used a Model Rating Task (MRT) that extended previous silhouette measures to include: 1) dressed models; 2) models of heavier BMI categories, and 3) shaded models to represent African America stimuli. With the MRT, the impact of attire, body size, and model ethnicity on definitions of attractiveness could be examined. Participants were 80 African American and 80 Caucasian women with a mean age of 41.40 years, SD= 11.25, a mean body mass index of 28.30 kg/m2, SD= 6.78, an average education level of 15.43 years, SD= 2.51; and average yearly income of $50,000 (20,000). Mean attractiveness rating scores (ranging from 1 to 8) were compared between ethnic groups for dressed and

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undressed models across five BMI categories ranging from underweight to class II obesity. Participant ethnicity did not affect overall attractiveness scores, $F_{(5,148)}= .89$, $p=.49$. However, model presentation did with both African Americans and Caucasians rating dressed models more attractive than undressed models, $F_{(5,148)}= 3.08$, $p<.01$. Contrary to expectations, participant ethnic identity and SES did not differentially impact the effects of participant ethnicity or model attire status on attractiveness. Using regression analysis, model dress, $F_{(5,152)}= 3.15$, $p= .01$, was the only significant predictor of attractiveness with higher ratings for dressed models.

Findings from this study provide some evidence for the utility of the MRT as a culturally appropriate assessment for attractiveness. Future studies should examine the validity of the MRT, the relationship of body image and attractiveness, and extend investigations of attractiveness to include other salient components such as facial features and skin complexion. Expanding our understanding of the construct of attractiveness and body image among African American women and other ethnic minority subgroups is a necessary step in developing culturally sensitive weight loss and weight gain prevention programs. It is crucial that researchers and health care providers understand that attractiveness may differ by culture and that the appearance based drive for thinness can not and should not be relied upon to motivate certain subgroups to achieve healthy body weight.

BEAUTY IS IN THE EYES OF THE BEHOLDER: DEFINITIONS OF

ATTRACTIVENESS AMONG AFRICAN AMERICAN AND CAUCASIAN

WOMEN

by

Dawnavan Scott Davis

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This work is dedicated to my husband,
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And to my precious daughter, Micah, for changing my life forever. I love you with
every piece of my soul.

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INTRODUCTION

I. Obesity in Americans

More than 127 million people in the United States are obese or overweight (CDC, 2003). Currently, 31% of our U.S. population is obese and 65% overweight, with African American women suffering disproportionately compared to their Caucasian counterparts. Over half (50.4%) of African American women in the U.S. are obese and the obese and overweight comprise 77.7%, whereas only one-third (30.4%) of Caucasian women are obese and 57.2% overweight (CDC, 2003).

Body Mass Index (BMI) designations (weight in kilograms/height in meters squared) for obesity (BMI $\geq$ 30.0 kg/m^2) and overweight (BMI 25.0 kg/m^2 to 29.9 kg/m^2) are based on epidemiological data showing increases in mortality with BMI greater than 25kg/m^2 (NHLBI, 1998b). The increase in mortality generally tends to be modest until a BMI of 30kg/m^2 is reached. However, for persons with a BMI greater than 30kg/m^2, mortality rates from all causes, especially from cardiovascular disease, are increased by 50 to 100 percent above that of persons with BMI in the range of 20 to 25kg/m^2 (NHLBI, 1998b).

There has been increased recognition that the risk associated with a given level of overweight or obesity may vary with race and ethnicity for certain subgroups (Stern, Patterson, Mitchell, Hafner, & Hazuda, 1990). Most work has focused on Asians and Native American groups where lower BMI's are associated with greater risk (Andres, Muller, & Sorkin, 1993; Hanson, McCance, & Jacobsson, 1995; Hodge, Dowse, Collins, & Zimmet, 1996. However, at present, the verdict for African American women is still out and it seems prudent to continue to recommend prevention and treatment of obesity

(Durazo-Arvizu, Cooper, Luke, Prewitt, Liao, & McGee, 1997; Johnson, Heineman, Heiss, Hames, & Tyroler, 1986; Stevens, Keil, Rust, Tyroler, Davis, & Gazes, 1992; Wienpahl, Ragland, & Sidney, 1990).

II. Sociocultural Influences on Obesity

Beyond the biological and environmental contributors to overweight and obesity, sociocultural factors such as views regarding weight and weight loss, body ideals, definitions of attractiveness, and the perceived relationship between body size and health may play serve as a risk factor for obesity. Several researchers have investigated the sociocultural influences that may promote obesity in African American women.

Desire to lose weight. Early survey studies of weight-related attitudes among African American and Caucasian women generally reported the same themes: African Americans had higher desired weights than Caucasians, were less likely to think of themselves as fat, were more satisfied with their figures, were more likely to want their hips and thighs to be larger, and were less likely to be dieting (Kemper, Sargent, Drane, Valois, & Hussey, 1994; Parker, Nichter, Nichter, Vuckovic, Sims, & Ritenaugh, 1995; Wadden, Stunkard, Rich, Rubin, Sweidel, & McKinney, 1990; Wilson, Sargent, & Dias, 1994). However, an earlier survey on weight loss practices among African American and Caucasian women (Dawson, 1988) contradicted these findings. More than two-thirds of self-defined overweight African American women were trying to lose weight. Additionally, close to 75% of those considering themselves very overweight were trying to lose weight. The prevalence of dieting did not differ by ethnicity. These findings suggested that African American women were just as likely to attempt weight loss when they perceive themselves to be overweight as Caucasian women. Additionally, Dawson

recognized that African American women's perceptions of overweight were more strongly influenced by their weight relative to their peers than by their weight relative to an arbitrary, health-based standard (Dawson, 1988).

Surveying 500 African American women, Kumanyika (1993) examined whether African American women were less motivated to control their weight because of permissive attitudes towards obesity within the African American community. She found that although recognition of being overweight was very high, overweight status had no effect on body image. Approximately 40% of African American women in the overweight categories considered their figures attractive or very attractive. In addition, African American women did not perceive weight control as a salient part of their roles in the community. Eighty-one percent believed overweight had not caused problems in personal, family (i.e. within community), while 96% reported overweight did not deter them from getting a job. Women did report weight-related health concerns with approximately 81% of the sample reporting they were aware of the health problems associated with being overweight, especially the moderately and severely overweight (Kumanyika, 1993). African American women also reported dieting for both health and looks. Unfortunately, most African American women relied on appearance factors (i.e., "How I look in the mirror."), or clothing (i.e., "When my clothes get too tight.") to determine if their weight had increased. Only 21% and 6% reported measuring the body weight or reacting to their physician's advice, respectively. The use of subjective methods for monitoring weight status, coupled with a social environment where overweight is "normal" and attractive, are particularly detrimental to weight control in

African American women. Contextual factors (e.g., appearance, clothing) allow for the continued use of imprecise cues concerning weight status.

Mossavar-Rahmani and colleagues (Mossavar-Rahmani, Pelto, Ferris, & Allen, 1996) examined body image among a multiethnic sample. They found within race differences in body image ideals with Anglo and Eastern Europeans grouped together and Italian Americans grouped separately. African Americans and African Caribbean's, were grouped together because they reported similar body image ideals, selecting heavier weights as ideal and reporting heavier body sizes to be attractive to mates and peers. While ethnic and racial groups have previously been shown to differ in body size preference (e.g., African Americans preferring larger body sizes relative to Caucasians) Mossavar-Rahmani and colleagues (1996) reported differences across these ethnic groups depending on height. Tall Anglo and Eastern European Americans tended to overestimate their body size, while tall African American and African Caribbean tended to underestimate body size. Again, imprecise contextual cues may be partially causal in discrepant estimation in body size between racial groups. It appears that peer comparisons for both groups are within racial group. Changes in acculturation and racial identity may extend the definition of peer group to include other racial groups.

Walcott-McQuigg (1993) asked 36 professional African American women to explain their weight control behavior. They found "weight control" was defined differently than "diet control." Diet control meant eating behaviors designed to reduce fat, cholesterol, sodium, and sugars for better health.   Weight management behaviors were motivated by the desire to be physically attractive and look good in clothing. For these women, health was rarely a motivator for weight loss.

Culturally mediated views of attractiveness and beauty and their connection to body image may contribute to weight loss efforts differentially across ethnicity. Generally, traditional weight loss paradigms and frameworks are based upon the majority culture's views of attractiveness, which involves the thin ideal. Certain minority populations may not internalize this thin ideal. Consequently, African American women may not respond as expected to traditional weight loss programs. This poor response may be labeled as "non-adherence." However, researchers and practitioners may fail to appreciate the relative contribution of beauty ideals in promoting or inhibiting weight loss efforts by assuming that definitions of attractiveness are consistent across ethnicities.

Body Image: Do Perceptions of Attractiveness among Adult Women differ by Ethnicity?

In earlier studies, body image was defined as "the mental image that a person has of the physical appearance of his/her body" (Garner, Garfinkel, & Moldofosky, 1978). This definition has not changed significantly over the years. Thompson and colleagues (1998) described body image as "the internal representation of your own outer appearance--your own unique perception of your body." (Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1998). Cash (1990) simply commented that body image was "the view from the inside." While the view from the inside has proven important to Caucasian women, the view from the outside may be as important to African American women. Both descriptions of body image are solely based on physical appearance perceptions.

Body image disturbance is the broader term used to describe all possible aspects of body image. Under the rubric of body image disturbance lay several domains in which a singular disturbance or combination of disturbances may manifest. Most body image

researchers, however, agree that a continuum model of body disturbances mirroring the

continuum model of eating pathology is the best way to conceptualize body image

(Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1998). Eating pathology, for example,

ranges on a continuum from no pathology to extreme pathology, such as Anorexia

Nervosa, Bulimia Nervosa, Body Dysmorphic Disorder, and Binge Eating Disorder.

Whether body image disturbance is defined along a continuum or categorically, Schlundt

and Johnson (1990) insist that the best conceptualization of body image must include

distinctions between perceived body image (i.e., what I think I look like), ideal body

image (i.e., what I desire to look like), and actual body size.

Thompson and colleagues (1998) reported that body image disturbance may take

many forms, including affective, cognitive, behavioral, and perceptual components.

When an individual is upset, distressed, or anxious about his or her appearance, the

disturbance is affective in nature (Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1998).

Schlundt and Johnson (1990) added that how we feel about our bodies and our shape is

also representative of an affective component. They suggested that these feelings might

be positive or negative and arise whenever we talk, think, or picture our bodies. Clinical

observations of increased anxiety associated with African American and Caucasian

women approaching the weight scale before weight management group sessions represent

this type of affective response. Conversely, a cognitive component of body image

disturbance might involve an unrealistic expectation concerning an appearance feature.

Thompson and colleagues (1998) described the desire to look like a fashion model as an

illustration of this type of disturbance. Schlundt and Johnson (1990) suggested that the

cognitive piece of body image disturbance is not based only on desires for certain body

sizes and shapes, but also involves the implications of body shape for life and relationships with others.

The obesity literature suggests that perceptions of weight are influenced by the perceptions of others, particularly for African American women. Peers, family, and friends of African American women are paramount in perceptions of attractiveness and in their acceptance of their weight (James, 1988). Similarly, social influences on Caucasian women drive their perceptions of attractiveness and preferences for lower body weights.

Behavioral aspects of body image disturbance are avoidance of situations and events that might bring any attention to one's body. For example, avoidance of swimming at pools or beaches and working out in a fitness club where the body might be seen(Thompson,1998). Many African American weight loss group members report that they buy clothes over a "range of sizes" and attempt to buy "fabrics that stretch" in order to avoid department store changing rooms.

Perceptual components, the final aspect of body image disturbance, are overestimations of one's body size (Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1998). Schlundt and Johnson (1990) have insisted, that perceptual components are distinct from body dissatisfaction. Perceptual distortion occurs when there is a discrepancy between perceived body image (i.e., what I think I look like) and actual body size, while body dissatisfaction represents a discrepancy between perceived and ideal body size (i.e., what I desire to look like). In short, perceptual distortion is a perceptual/cognitive problem and body dissatisfaction is a cognitive/affective problem. Consequently, body dissatisfaction is on a continuum on which clinicians can successfully manage affective, cognitive, or behavioral discrepancies (Schlundt &

Johnson, 1990). An individual's subjective evaluation of self is derived from their level

of body dissatisfaction (Markus, 1977; Schlundt & Johnson, 1990; Thompson et al.,

1998; Wooley & Wooley, 1985). As such, body dissatisfaction is recognized as the most

important global measure of distress. Researchers and clinicians are confronted with the

difficult task of determining when normal appearance concerns convert to a problematic

disturbance. As with obesity, measurement and definition of body dissatisfaction is a

complex issue, confounded by racial identity, social influences, and individual influences.

The following is a review of the major research concerning body image among

African American and Caucasian women. Within this review, there is a focus on both the

knowledge gained and the methodological approach.

Body Image Among African American Women in the Community

In one of the earliest articles examining body image in African American women,

Thomas (1988) was very direct in surmising that many Americans, African Americans

included, are dissatisfied with their bodies, irrespective of actual body weight.

Specifically, the researcher noted that women's satisfaction with their body image was

influenced by physical characteristics and a myriad of other factors. Women appeared to

be influenced by the way others react to them, by comparisons of their bodies with others

in their environment, and comparison to cultural ideals (Thomas, 1988).

Results from this seminal survey study of 102 African American adult women in

the Washington, D.C. metropolitan area produced two major conclusions. First, African

American women do indeed experience body dissatisfaction. For overall body image

dissatisfaction, 34.7% of the women were either very happy (10.9%) or somewhat happy

(23.8%) with their bodies, while most (54.5%) were either very unhappy (14.9%) or

somewhat unhappy (39.6%). Second, the perception of significant others was the most important factor in body image dissatisfaction. Specifically, perceptions of close female and male friends were related to the participants' own feelings regarding their bodies. Thomas hypothesized that body image evaluations were greatly influenced by the women's judgment of the perceptions of significant men (e.g., boyfriends or spouses) in their lives. Surprisingly, self-esteem correlated negatively with body dissatisfaction and body weight. Thomas hypothesized that the African American women may not have internalized American society's standard of beauty and fashion, and were therefore less inclined to relate their overall self-worth with various aspects of their appearance (Thomas, 1988).

Body Image Among African American College Women

Harris (1995) was one of the first to acknowledge that body image should be recognized as multifaceted, that body image was not uniformly conceptualized across studies, and that these conceptual issues may be particularly problematic for the study of African American women.   Specifically, inconsistent conceptualization of body image across studies, imprecise use of terms associated with body image, and highly variable measurement of the body image construct may cumulatively account for the low level of reported incidence of eating disorders, low levels of reported dieting behavior, and the low levels of reported body dissatisfaction in research studies of African American women.

In short, for African American women, measurement of body image has been difficult. Given the problematic nature of defining body image in previous studies and the limitations of present day measurement instruments based on traditional Caucasian

ideals , Harris (1995) has noted that the only way to adequately and reliably assess African American women's views of their bodies is to consider multiple dimensions. He recommends assessing the relationship of body image to SES, BMI, and ethnic identity. Harris (1995) believes low SES status would be associated with less favorable evaluations of appearance, health, and body satisfaction. Similarly, he has hypothesized that BMI and weight discrepancy would also correlate negatively with appearance, health, and body satisfaction. Finally, he proposes that stages of positive acceptance of "Blackness" would relate positively to body attitudes, whereas stages involving the admiration of Caucasian norms would relate to more negative body attitudes. In work examining these hypotheses, the results were mixed.

Body image attitudes were not significantly related to yearly family income, nor was SES a significant factor in appearance, health, or body image in African American women. Higher BMI was associated with more body dissatisfaction, more body areas dissatisfaction, more concern for and participation in fitness-enhancing behaviors, and more unfavorable evaluations of physical appearance and fitness. Conversely, BMI was unrelated to the health dimension, ideal weight was unrelated to health and fitness, and weight discrepancy was not related to health. Generally, socially self-confident and competent women evaluated their physical appearance more favorably, considered their physical health to be more important, and engaged in more health-enhancing behaviors than less socially confident women.

Lastly, racial identity attitudes were associated with measures of body image. Women with pro-Black attitudes reported favorable evaluations of their physical appearance. Women in the process of rejecting pro-Caucasian perspectives and

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evaluating and incorporating experiences specific to African American culture reported satisfaction with specific body areas, expressed concern for and participation in health-promoting behaviors, held favorable evaluations of their physical appearance and fitness, attached importance to physical health, and engaged in health-enhancing behaviors.

Past findings also support Harris's (1995) model. For example, research showing a negative correlation between weight-related factors and body image attitudes (James, 1988; Walcott-McQuigg, 1993) and work finding that racial identity attitudes were related to body image attitudes in African American women (Abrams, Allen, & Gray, 1993; Thomas, 1988). Most importantly, these results refuted suggestions that obese African American women have low levels of body dissatisfaction and express little concern about their weight.

Body Image in an Obese African American clinical sample

Work from our group suggests African American women living in predominantly African American neighborhoods were less likely to hold Caucasian ideals that are associated with problem eating attitudes and behaviors (Sbrocco, et al., 2005). Following the conceptualization of ethnicity proposed by Carter, Sbrocco, and Carter (1997), Sbrocco and colleagues (2005) the ethnic composition of study participants' neighborhoods was used as a measure of acculturation. As expected, ethnic composition differed among the groups with the community-based church group living in predominantly African American neighborhoods (86%), the Caucasian Americans living in predominantly Caucasian neighborhoods (85%), and the African Americans receiving treatment at the University living in more diverse or mixed neighborhoods (66% Caucasian; 22% African American). More importantly, census data confirmed that

Caucasian women in the university sample, living in neighborhoods with predominantly Caucasian residents, evidenced the most eating pathology. Similarly, African Americans in the university sample, living in neighborhoods of mixed ethnicities, evidenced intermediate levels of eating pathology. Finally, African Americans at the community site, living in neighborhoods of predominantly African Americans, evidenced the least eating pathology. Sbrocco and colleagues believe these results are evidence that acculturation, as measured by racial makeup of one's community, in addition to the standard identity measures, may better tap into the construct of ethnicity as related to eating pathology (Sbrocco et al., 2005).

Work from the same group found that the relationship between body dissatisfaction and self-esteem differed between African American and Caucasian women (Vaughn, et al., 2000). Thirty-three obese African American women entering weight management treatment completed the Body Dissatisfaction subscale of the Eating Disorders Inventory (EDI-BD; Garner, Olmsted, & Polivy, 1983), the African American Acculturation Scale (AAAS; Landrine & Klonoff, 1994), the Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1975) and the State Self-Esteem Scale (SSES; Heatherton & Polivy, 1991). Results showed that the SSES and the AAAS accounted for a significant proportion of the variance in EDI-BD. These preliminary findings are again suggestive of the usefulness of concepts such as acculturation in understanding the process to eating pathology and body image disturbance in African American women (Vaughn et al., 2000).

Body Image Among Caucasian College Women

Stormer and Thompson (1996) attempted to derive a theoretical model of body image disturbance from a host of predictors and criterion variables that have been used by several body image researchers. They selected independent variables derived from theories of social comparison, maturational status, negative verbal commentary, and sociocultural influences, while also measuring body image dissatisfaction using several dependent variables.   This approach was critical for the development of a more comprehensive treatment model of body image dissatisfaction. In the final analyses, social comparison (ACS; Thompson & Heinberg, 1993) and sociocultural factors (SATAQ; Heinberg, Stormer, & Thompson, 1995) were significant predictors on all dependent measures of body dissatisfaction (Stormer & Thompson, 1996). Although this study only included Caucasian college females in its sample, and used silhouettes as the primary tool for assessing body dissatisfaction (FRS; Stunkard, Sorenson, & Schulsinger, 1983), information gained from this study had utility in the conceptualization of a comprehensive model in predicting body image dissatisfaction.

Body Image in African American versus Caucasian College Women

Rucker and Cash (1991) were among the first to compare body image, weight concerns, and eating behaviors in African American and Caucasian college females. The Body Image Avoidance Questionnaire (BIAQ; Rosen, Srebnik, Saltzberg, & Wendt, 1991) was used to assess the behaviors used to control or to conceal appearance. The Body Image Assessment Procedure (BIAP; Rucker & Cash, 1991) was administered to rate randomly ordered silhouettes from extremely thin (1) to extremely fat (9). Several differences between African American and Caucasian females emerged.

First, relative to African American females, Caucasian college women reported greater body dissatisfaction, more negative automatic body thoughts, more negative evaluations of their appearance in general, and more body image avoidant behaviors to control or to conceal weight-related aspects of their appearance. Caucasian women also reported a greater fear of fatness, a stronger drive to be thin, more dieting concerns and weight preoccupation, greater weigh-fluctuation awareness, and higher weigh-in anxiety. The races did not differ, however, in their cognitive-behavioral investment in appearance or their perceptions of current body size.

Using a novel procedure, the Body Image Assessment Procedure, Rucker and Cash (1991) explored perceptions of fat by having the women rate silhouettes on their level of fatness. The Caucasian women perceived the silhouettes as fatter than African American women. Rucker and Cash surmised that Caucasian women might generally have a lower threshold for perceiving fatness. They further hypothesized that African American women, surrounded by the same majority culture, might have a different set of body image criteria and influences such as opinions of family and significant others that do not support the thin Caucasian ideal (Rucker & Cash, 1991). These results supported earlier work by James (1988) that concluded perceptions of significant others were important. Others have found similar results both within racial groups (Mossavar-Rahmani, Pelto, Ferris, & Allen, 1996) and between racial groups (Kumanyika, Wilson, & Guilford-Davenport, 1993). Rucker and Cash (1991) insisted that the results did not indicate that African American women idealize fatness, but their perceptions and attitudes were generally more moderate (i.e., less pursuant to extreme thinness) and less fat phobic than Caucasian women.

Similarly, Abrams, Allen, and Gray (1993) recognized that no study had examined whether disordered eating behaviors among African American college women were related to maladaptive attitudes or to negative psychological correlates that had previously been identified in Caucasian college women. Comparing African American and Caucasian college females, they found that Caucasian female students endorsed significantly greater fear of fat, drive for thinness, and body dissatisfaction as measured by the Eating Disorders Inventory (EDI; Garner, Olmsted, & Polivy, 1983) than their African American counterparts. Differences in dieting tendencies also emerged. For African American women, weight loss efforts and body dissatisfaction were positively related to weight, and tended to be more realistic and less extreme. Caucasian female students, however, were likely to adopt disordered eating attitudes and behaviors regardless of actual weight problems.

More recent studies replicate these findings. Perez and Joiner (2003) examined body image dissatisfaction and disordered eating among 96 (60 Caucasian; 36 African American) female undergraduate students. The Body Image Scale (Stunkard, Sorenson, & Schulsinger, 1983) and the EDI (Garner, Olmsted, & Polivy, 1983) were administered to participants. Caucasian and Black students differed in their ethnic group's ideal body size and their self-perceptions of how they compared with the ideal image. Black women tended to report being underweight, whereas Caucasian women tended to report being overweight. Black women also tended to report fewer bulimic symptoms relative to their Caucasian counterparts.

Another important goal of this study was to examine the impact of racial identity on eating pathology. These researchers hypothesized that African American women with

higher assimilation tendencies would be more likely to develop disordered eating behaviors and attitudes (Abrams, Allen, & Gray, 1993). As predicted, the Preencounter State (i.e., pro-Caucasian) of the Racial identity Attitudes Scale (RIAS; Helms, 1990) was significantly positively related to dietary restraint, fear of fat, and drive for thinness subscales from the EDI.

Body Image in African American Women versus Caucasian Women in the Community

Allan, Mayo, and Michel (1993), in a naturalistic study, evaluated the effect of cultural values on the relationship between body size values and the weight management activities of African American and Caucasian women. They posited that the most relevant macro-environmental influences were the cultural meaning and values attached weight and the cultural norms for beauty. Earlier work of Hayes and Ross (1987) showed Non-Caucasians were generally more concerned with appearance (i.e., being well-dressed and attractive to the opposite gender) and relied more on appearance factors in interpersonal and work situations. Allan, Mayo, and Michel (1993) believed existing knowledge of the relationship between appearance norms, ethnicity, social status, and health goals needed further elaboration.

Using six silhouettes derived by Massara & Stunkard (1979), participants were asked to select the body size that best corresponded to their own body size, their ideal or preferred body size, the body size they deemed most healthy, the body size they thought was most attractive, and to subsequently explain why they chose each one. Interviewers asked women what they thought they should weigh, what they perceived as attractive, and the perceived relationship between health and weight. The influences on ideas of

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appropriate weight from family, peers, media, and healthcare providers were then compared to the silhouette responses.

Lower SES African American women heavier than the combined group of Caucasian and African American women of higher SES. Lower SES African American women also viewed themselves as heavier, and chose a heavier 'perceived' attractive silhouette compared to higher SES African American and all Caucasian women. The majority of both African American and Caucasian women rated ideal, healthy, and attractive body size below biomedical standards. There were no significant differences between races on ratings of health or attractiveness. African American women, however, rated the self-ideal as heavier than Caucasian women.

Both racial groups preferred a thinner body size for themselves, regardless of social status or actual body size. More importantly, all body size preferences were within a range that was just above normal weight. Initially, these selections seemed to be direct evidence of America's thin ideal. However, during follow-up discussions they concluded that the body size preferences represented an ideal that was not taken very seriously by African American participants (Allan, Mayo, & Michel,1993).

These discussions also revealed that responses to what constituted normal weight were variable (Allan, Mayo, & Michel, 1993). Women's responses were not based on the biomedical standards, but on individualized definitions of normal weight. Women reported their definitions were based on perception of bone structure, past weight loss attempts, and evaluations of others. In general, normal weight Caucasian and African American women defined normal weight for themselves within a biomedical range of

normal to overweight. Both obese Caucasian and African American women, however, defined normal weight as obese by medical standards.

Responses to questions concerning healthy body size revealed that most women selected a thin body size as most healthy. Caucasian women talked more frequently than African American women about the physical health problems attributed to being overweight. Caucasian women also related overweight to problems with self-esteem, self-control, and intimacy. Surprisingly, although Caucasian women strongly associated being overweight with increased health problems, health was not identified as a motivator for initiating weight loss.

Researchers observed that African American women did not appear to strongly associate being overweight with their current health status and made fewer comments about the relationship between health and body size than Caucasian women (Allan, Mayo, & Michel, 1993). In fact, for some African American women, the term "healthy" had a different meaning than that given by health professionals. African American women tended to associate being healthy with having stamina, being solid, and being well nourished. They also described healthy as being attractive. Additionally, they associated their southern diet of high fat and high salt foods, rather than overweight, to hypertension. In summary, although the overwhelming majority of African American women selected a thin body size as healthy, health and decreased weight were not cognitively connected. It is possible that African American women were simply rating the silhouettes based on information received from physicians or other healthcare practitioners, but did not internalize the information.

Allan, Mayo, and Michel (1993) noted that African American and Caucasian women characterized attractive body size differently. The concept of attractiveness for African American women was akin to the idea of "looking good." For Caucasian women, the concept related to having a "killer body." Caucasian women emphasized a lean (i.e., absence of flesh or fat) and athletic look as most attractive. African American women, conversely, described attractiveness in terms of shapeliness, the fit of clothing, having hips, and femininity. African American women appeared more concerned with their public image and overall attractiveness suggesting "looking good" involves general presentation of self, appearance when dressed, and appeal to men. These values offer support for the importance of other's evaluations. Allan and colleagues (1993) observed that other's evaluations were salient for both Caucasian and African American women, but in different manners. While African American women described feeling influenced by friends and family to maintain a larger body size, Caucasian women consistently reported that partners and parents valued thinness and wanted them to be thin.

African American women's association of competence, respect, power, and beauty with a large body size is quite disparate from the mainstream American belief that obesity signifies laziness and incompetence. Allan, Mayo, and Michel (1993) noted that African American women made clear distinctions between being fat and being overweight:

> Overweight is different from flabby, or being out of proportion, such as having a big belly or big thighs that make you waddle when you walk. Nell Carter is fat; Oprah is not because she is well proportioned and dresses stylishly. Most of our most talented women are at least a size 16

In a community sample of adult African American and Caucasian women, Wifley and colleagues (1996) compared body image and eating disturbance. In addition to examining whether social pressures about thinness and negative attitudes about overweight would be important for both groups, normative data on the Eating Disorders Inventory (EDI; Garner & Polivy, 1991), were collected. Analyses of the EDI subscales, revealed acceptable coefficients of internal consistency (Cronbach's alpha ≥ .70). Although African American and Caucasian women reported body dissatisfaction, Caucasian women had significantly higher scores on the body dissatisfaction (EDI-BD subscale), even after controlling for BMI. There were, however, no differences between racial groups on measures tapping social pressures about thinness. There were no differences between groups in their perceptions of family dissatisfaction regarding their weight or any differences in their reports of whether they had been criticized about their weight. Findings from previous research (Allen, Mayo, & Michel, 1993; Rucker &Cash, 1991; & Thomas, 1988), suggests African American women may receive less critical feedback about their weight compared to Caucasian women.

There were also no differences in the factors that predicted increased levels of body dissatisfaction for either group of women. The authors suggest future research should specifically examine the effects of racial identity and cultural assimilation on eating behavior and body image (Wifley, Schreiber, Pike, Striegel-Moore, Wright, & Rodin, 1996). Kemper and colleagues (1994) were also interested in the concept of ideal body size. Their work focused on the relationship between weight and both healthy body size and attractive body size (Kemper, Sargent, Drane, Valois, & Hussey, 1994), noting that definitions of female attractiveness had seldom been based on health. They

recognized that negative health outcomes are often associated with heavier weight, but that the western female thin ideal may also have negative health outcomes. These researchers noted that although thinner females are typically considered more attractive than heavier females, it is not clear at what point someone is perceived to be too thin or too heavy. Generally, no single body size is considered ideal, stemming from an appearance perspective (e.g. attractiveness) or a health perspective (e.g. body weight or BMI).

Four hundred thirty seven women participated in a cross-sectional survey of health habits, 247 (56.5%) Caucasian women and 190 (43.5%) African American women. Similar to Wilson and colleagues(ref, 1994), women picked their perceived, ideal, and friends' ideal from nine silhouettes (Stunkard, Sorensen, & Schulsinger, 1983) They also rated each silhouette as too thin, thin, average, heavy, or too heavy.

There were significant differences between races in the selection of an ideal female body size. African American females selected an ideal body size larger than that selected by Caucasian participants. Racial groups also differed in body dissatisfaction, with African Americans tending to be less dissatisfied than Caucasians. Generally, Caucasian women wanted to be smaller while African American females wanted to stay the same or to be slightly smaller.

With regard to social norms, racial differences were evident, with African Americans selecting a larger ideal size than Caucasians. Similarly, for social evaluation, African American women were more likely to believe that their parents considered them a little thin, and thought their current size was satisfactory or should be slightly larger. However, Caucasian women were more likely to believe that their parents considered

them a little heavy and wanted them to be smaller.   African American women also

perceived that significant others felt they should not change their weight, while their

Caucasian counterparts perceived that significant others felt they should lose weight.

When groups were stratified by SES, other differences emerged. For selection of

ideal body size and social norm, SES was important. Low SES groups selected larger

body sizes as ideal as compared to high and middle SES groups. No differences were

found between middle and high SES groups. Furthermore, low SES groups selected

social ideals for women's body sizes that were larger than those selected by females from

high SES groups. However, for body dissatisfaction, social evaluation and expectation,

and positive life events and achievements, there were no significant differences across

SES groups. Finally, when asked about positive life events, both races indicated that

being overweight would decrease a person's chances of experiencing positive life events.

Caucasian females, however, felt the decrease would be greater than African Americans.

Additionally, when asked if being overweight increases or decreases your chances of

experiencing certain life achievements (e.g., health, job, career, college), there were no

significant differences between races. Stokes and Frederick-Recascino (2003),

examining the relationship between body image and life happiness among 144 women,

found similar results. They found a positive relationship between body esteem: sexual

attractiveness, weight concern, and happiness, independent of ethnicity. These findings

highlight the potential saliency of body image on quality of life for certain female

subgroups.

Summary. In summary, since the earlier work on attractiveness, few studies

have attempted to delineate the components of attractiveness among African American

women. The research suggests that African American women tend to be more accepting of heavier weight and have a multifactorial view of beauty, not entirely focused on body size (Dawes, 1988; Harris, 1995; Rucker & Cash, 1991). Moreover, African American women tend to have a more comprehensive definition of attractiveness that may include the "total package" (e.g., dress attire, overall appearance, style and presentation), whereas Caucasians may tend to adopt a more unifactorial definition of attractiveness where body thinness is the primary indicator of attractiveness and beauty (Mossavar-Rahmani, Pelto, Ferris, & Allen, 1996).

However, to date, no studies have systematically examined the components of attractiveness by ethnicity. The proposed study examined the impact of dress attire, body size, and ethnicity on attractiveness ratings. African American and Caucasian women rated dressed or undressed African American and Caucasian silhouettes of five weights to determine whether attire, body size, and ethnicity differentially impacts attractiveness ratings.

The results for body image preference by ethnicity have been mixed. There is some evidence that body image does not differ by ethnicity (e.g., Dawson, 1988). Most studies demonstrate that body image does differ between African American and Caucasian women (e.g., Allan, Mayo, and Michel, 1993). Given this, the next step was to review the literature regarding the role of two critical factors, ethnicity and weight, that have been found to differentially impact attractiveness for African American and Caucasian women.

The Role of Ethnicity on Body Image

Carter, Sbrocco, & Carter (1996) proposed a model of ethnicity derived from their work exploring anxiety disorders in African Americans. Here, "something about African American ethnicity" results in the differential expression of psychopathology among African Americans presenting for treatment. They note ethnicity was generally defined as "a shared culture or lifestyle," while race was defined as "a category of persons who are related by a common heredity or ancestry" (Wilkinson, 1993, pg.19).

Carter et al., (1996) recommend conceptualizing ethnicity as a latent construct represented by two lower-order factors, racial identity and acculturation, are more useful. Racial identity represents a sense of belongingness to one's cultural group, while acculturation entails adoption of characteristics, behaviors, and beliefs of mainstream or majority culture. The relationship of these variables is independent, although possibly correlated. As a result, persons may theoretically exhibit one of four constellations of ethnicity: high racial identity and low acculturation, high racial identity and high acculturation, low racial identity and high acculturation, and low racial identity and low acculturation. SES, age cohort, and stress act may act together to impact racial identity and acculturation. For example, higher SES might represent greater acculturation while lower SES might predict increased stress. Age cohort might impact ethnicity simply because of the changes in American society. For example, race relations and behaviors associated with the America of 20-30 years ago are not the same as those in our present society. Consequently, the racial identity of older African Americans might reflect different levels of trust and acceptance in Caucasian society. Similarly, Caucasians may

express differential racial expectations and beliefs as a function of individual experiences directly related to their age cohort.

Unfortunately, many researchers neglect to acknowledge that all Americans, Caucasians included, have a racial identity. Furthermore, all Americans have a level of acculturation to the majority culture. While acculturation might seem an obvious variable for minorities (e.g., African Americans, Hispanics, Asians), it might appear an odd consideration for Caucasian Americans.

Particularly important to the construct of ethnicity, is the recognition that racial identity and acculturation are continuous and dimensional versus dichotomous variables. It is important to understand that values of interest between African Americans and Caucasians vary within each culture. The question of how best to measure ethnicity in both African Americans (i.e., minority group) and Caucasians (i.e., majority group) still remains? Measures appropriate for use with both races, are at best, scant.

Despite the above evidence that suggests the role of ethnicity in the formulations and maintenance of definitions of attractiveness and body dissatisfaction among different ethnic populations (Wildes & Emery, 2001), to date no studies have examined the impact of model ethnicity on the evaluation of physical attractiveness. Previous work has typically involved women rating their own degree of attractiveness using racially ambiguous figural stimuli. Such techniques tend to minimize the potential effects of race and ethnicity on definitions of attractiveness and beauty for certain ethnic groups. The present study examined the impact of participant ethnicity and model ethnicity on attractiveness ratings for both African American and Caucasian women. African American and Caucasian participants were asked to rate both African American and

Caucasian models on attractiveness to determine how ethnicity influences views of beauty within and between racial groups.

The Role of Weight on Body Image

Research has consistently shown that increased weight is associated with body dissatisfaction in Caucasian women (e.g., Abrams, Allen, & Gray, 1993; Rucker & Cash, 1991; Stormer & Thompson, 1995) and some studies have found a similar relationship in African American women (e.g., Harris, 1995; James, 1988). Body dissatisfaction associated with increased weight has also been documented in children and adolescents (Parker et al., 1995). Unfortunately, decreased body weight does not ensure decreased body dissatisfaction. Cash, Counts, and Huffine (1990) reported that formerly overweight individuals did not have an automatic increase in appearance evaluation, and were generally more distressed about being overweight when compared with a current overweight sample. Rosen (1996) also reported that losing weight was not necessary for decrease body dissatisfaction. Although counterintuitive, body image satisfaction does not automatically occur in the wake of weight loss nor does body image dissatisfaction remain despite maintenance of weight.

Allen, Mayo, and Michel (1993) reported that overweight African American women made less connection between health and weight status than overweight Caucasian women. Caucasian women acknowledged the importance of weight to their overall health, however, health was not a primary factor for wanting to lose weight. Societal stigmatization associated with obesity tended to push Caucasian women toward weight loss attempts.

Summary. The relationships between weight status and attractiveness by ethnicity provide inconclusive evidence. Overall, African Americans compare weight status and attractiveness with other African Americans, whereas Caucasians compare such factors with other Caucasians and the thin ideal of American culture (Allen, Mayo, & Michel, 1993; Dawson, 1988; Kemper et al., 1994; Parker et al., 1995). In general, when weight increases, body dissatisfaction increases among obese and eating disordered populations for certain subgroups of the adult female population. However, among certain subgroups of African American women increased weight does not correlate with increased body dissatisfaction. Therefore, it was important to determine the relationship between weight and attractiveness in women of various weight categories (e.g., underweight, normal weight, overweight, and obese). The present study examined the effects of participant weight and model weight on attractiveness for African American and Caucasian women. Women were asked to rate the attractiveness of underweight, normal weight, overweight, obese, and extremely obese models to determine whether weight status differentially impacts attractiveness ratings by ethnicity.

PURPOSE OF THE STUDY

In the present study, attractiveness was operationalized as a one's evaluation of appearance factors, beyond body size. Attractiveness was conceptualized to be comprised of body image as well as other appearance factors such as attire and ethnicity (see Figure 8). Given the aforementioned divisions between perceptions of attractiveness among African American and Caucasian women, the present study had four purposes: 1) To examine the importance of attire in defining beauty across ethnic groups; 2) to

replicate earlier findings regarding ethnic differences in attractiveness as it relates to body size; 3) to determine the impact ethnicity on attractiveness ratings; and 4) to examine the impact of SES and ethnic identity on attractiveness.

This study used silhouettes to assess definitions of attractiveness across ethnicity. African American (AA) and Caucasian (CC) women rated female silhouettes on level of attractiveness. The models, themselves, were AA or CC, and either undressed or dressed. A Model Rating Task was constructed to allow for the examination of the impact of attire, body size, and ethnicity (i.e., model ethnicity and participant ethnicity) on attractiveness ratings across five weight groups: underweight, normal weight, overweight, class 1 obese, and class 2 obese.

The effects of model presentation (i.e., undressed or dressed) on ratings of attractiveness for African American and Caucasian participants were compared. To examine the impact of body size on attractiveness, attractiveness ratings across the five weight categories were analyzed. Additionally, the effects of model ethnicity on attractiveness for AA and CC women were compared.

Divergent views of attractiveness across ethnicity may serve as risk or preventive factors for obesity among certain subsets of the populations. Given the goal of primary prevention with regard to obesity, a thorough examination of the definitions of attractiveness across ethnic groups may be critical for obesity-related education, intervention, and treatment efforts. Four hypotheses were examined in this study.

HYPOTHESES AND RATIONALE

The research reviewed in the background section points to the need to further examine attractiveness across different ethnic groups. Previous research suggests

differential definitions of attractiveness between African American and Caucasian women. It appears that African American women may hold a multicomponent view of attractiveness that is not entirely based on body thinness. Additionally, African American women may rely less on body size and more on other appearance factors such as dress attire and ethnicity when evaluating attractiveness relative to Caucasian women. However, few studies had attempted to examine the relative importance of key appearance factors (i.e., attire, body size, and ethnicity) on definitions of attractiveness for African American and Caucasian women.

The contributors to differences in attractiveness by ethnicity have not been clearly delineated. Studies indicate that factors such as SES and ethnic identity may partly explain the differences in attractiveness between African American and Caucasian women. However, the impact of SES and ethnic identity on attractiveness for African American and Caucasian women is not fully understood. This study examined the contribution of SES and ethnic identity on attractiveness for African American and Caucasian women.

Three key components of attractiveness were manipulated (i.e., clothing, body size, and skin color) and differences in attractiveness ratings by ethnicity were examined. In addition, the impact of SES and ethnic identity on attractiveness ratings was examined. The hypotheses for the present study were based on the model presented in Figure 8.

The following four hypotheses were examined:

Hypothesis 1. The Impact of Attire on Attractiveness.

A. African American women were expected rate dressed models more attractive than undressed models.

B. Attire was not expected to impact attractiveness ratings for Caucasian women.

Hypothesis 2. The Impact of Body Size on Attractiveness.

A. African American women were expected to rate heavier models more attractive.

B. Caucasian women were expected to rate thinner models more attractive.

C. BMI was expected to be related to attractiveness ratings.

Hypothesis 3. The Impact of Ethnicity on Attractiveness

A. Women were expected to rate models of the same ethnicity as more attractive.

Hypothesis 4. The Impact of SES and Ethnic Identity on Attractiveness Ratings

A. Lower SES African American women were expected to rate attractiveness differently than higher SES African American women.

B. African American women with high ethnic identity were expected to rate attractiveness differently than those with low ethnic identity.

C. SES and ethnic identity were not expected to impact attractiveness for Caucasian women

METHOD

Participants

Participants were recruited by newspaper advertisements/flyers posted at research institutions, churches, and community centers in the greater Washington, D.C. metropolitan area. Two hundred and three women between the ages of 18-60 years were screened for the present study.

Exclusion Criteria Rationale.

1) Current or Past Eating Disorder. One of the criteria for eating disorders is a body image disturbance that affects an individual's perception of their body weight and shape. Thus, women with eating disorders have an inherit pathology that may have biased their responses to model rating activity.

2) Current or Past Psychotic Disorder. The benchmark symptoms of psychotic disorders are impaired or disorganized thought processes in the form of delusion, hallucinations (e.g., visual and auditory). Such symptomotology may have inhibited the prospective participant's ability to perform model rating activity and complete surveys contained in the questionnaire packet.

3) Pregnant Women. The literature provides some evidence that pregnancy is a period that can significantly affect a woman's body perception. These differences in body image and health perception may have differentially impacted attractiveness ratings. In addition, pregnant women may experience dramatic changes in their weight during pregnancy. In the current study, BMI would have not been able to be accurately measured in pregnant women. The changes in BMI typically experienced during pregnancy may have influenced attractiveness ratings.

4) Depressed Mood- Although to date, the relationship between self attractiveness evaluation and depression is inconclusive (Keel, Fulkerson, & Leon, 1997; Vogeltanz-Holm, Wonderlich, Lewis, Wilsnack, Harris, Kristjanson, 2000), there is established evidence that depressed mood may alter psychomotor functioning, concentration, self-esteem, and weight (APA, 1994). Such factors may have impacted attractiveness ratings and/or impaired an individual's ability to complete model rating task and questionnaires.

Given the above exclusion rationale, women who self-reported a current or past diagnosis of an eating disorder (see Appendix B, questions 8 and 9) or endorsed significant eating pathology by responding "yes" to four or more of the seven eating behavior phone screen questions (see Appendix B, questions 8a-g) were excluded from

the study. In addition, prospective volunteers who self-reported a current or past

diagnosis of a psychotic disorder or endorse auditory or visual hallucinations by

responding "yes" to phone screen questions were excluded (see Appendix B, questions

14A, 14A1, and 14A2). Women who self-reported that they were currently pregnant

were also excluded. Additional exclusion criteria included the presence of elevated

depressed mood, as defined by a Beck Depression Inventory II (BDI-II) score of ≥ 14.

Of the 203 women initially screened, 2 women were excluded for self-

identification to another ethnic minority group (i.e., 1 Hispanic and 1 Mixed), and 14

were excluded for current elevated depressed mood. Three women self-reported a current

or past eating disorder, while one woman self-reported a current bi-polar disorder. One

hundred and eighty three women were found to eligible to participate in the study, and

randomized into treatment conditions. Of the 183 randomized, 23 women were

unsuccessful in completing all participant requirements: questionnaire packet and one-

time visit. As a result, 160 women (80 African Americans; 80 Caucasians) completed the

current study.

Measures

A. *Anthropomorphic.* Weight in pounds was measured on a balance beam scale at

the time of one-time visit for each participant. Height, to the nearest ½ inch, was

obtained for each participant. Weight and height measurements were recorded on Weight

Log (see Appendix G).

Body Mass Index (BMI). Computed from Quetelet's index (kg/m^2), BMI is a

commonly used method of adjusting weight for height in epidemiological and clinical

studies. BMI is presently considered the best indirect measure of obesity and is strongly

correlated with body fat content (Foreyt & St. Jeor, 1997; NHLBI, 1998b). In the current

study, BMI in kg/m^2 was calculated from weight and height measures obtained and

recorded on Weight Log (see Appendix G). In addition, BMI was used to determine the

impact of participant's BMI on attractiveness ratings.

B. *Demographic Form.* As part of the questionnaire packet, each volunteer

completed a Demographic Form, which asked the participant to report their gender, age,

race, height, weight, level of education, annual household income, marital status, home

address, email address, and daytime and evening phone numbers (see Appendix C).

C. *Phone Screen Form.* Each prospective participant was asked to answer questions

regarding their psychological and medical health status, and report gender, age, ethnicity,

height and weight, and contact information (email, day and evening phone numbers; see

Phone Screen in Appendix B).   Eligibility status using the phone screen and depression

screen was determined using the following methods:

1) Age- Participant's age was assessed using a self-report question (i.e., how old are

you?).

2) Ethnicity- Participant's ethnicity was assessed using the standard self-report ethnicity

classification categories (see Appendix C).

3) Eating Disorder- The presence or absence of a self-identified past or current eating

disorder was assessed using self-report questions adopted from the Eating Disorders

Examination Questionnaire (EDE-Q; Fairburn & Beglin, 1994) that assess eating

behaviors and patterns. The seven questions from the EDE-Q that have been found to

reliably identify anorexic, bulimic, binge eating patterns, and body image pathology

(Fairburn & Beglin, 1994) were used. These items were included in the phone

screen. Women who responded "yes" to 4 or more of the eating behaviors screening

questions were excluded from the study (see Appendix B, questions 8a-g).

4) Psychotic Disorders- Self-report questions were adopted from the widely used Scale

of Affective Disorders & Schizophernia (Endicott & Spitzer, 1978) to assess the

presence of delusions and/or hallucinations. This measure evaluates the presence or

absence of visual and/or auditory hallucinations using a Yes/No format. A "yes"

response to any of the auditory hallucinations questions (i.e., have you ever heard

voices?; do frequently hear things that other people do not hear?), the visual

hallucinations question (i.e., do you frequently see things that other people do not

see?), or the question regarding current or past diagnosis of schizophernia (see

Appendix B, questions 14-14A2) is thought to indicate some degree of psychosis.

Therefore, women who endorsed any of these questions were excluded from the

study.

5) Pregnancy- Participant's pregnancy status was assessed using the self-report question

(i.e., are you currently pregnant?).

D. *Depression Screen.* The Beck Depression Inventory II (BDI- II; Beck, Steer, &

Brown, 1996), a revision of the original BDI (Beck, Ward, Mendelson, Mock, &

Erbaugh, 1968), was used to exclude women with elevated depressed mood. The BDI-II

is a 21-item self-report measure designed to assess clinical levels of depression (see

Appendix D). Scores range from 0 to 63, with higher scores indicating greater depressed

mood (scores $\geq$ 21 indicates clinical depression). For this investigation, women with a

BDI-II score of $\geq$ 14 were excluded from the study. Dozois, Dobson & Ahnberg (1998)

reported that the BDI-II demonstrated high internal reliability and that it was a stronger measure than the BDI with regard to factor structure.

E. *Self-Esteem.* Given the research has closely in linked self-esteem with body image and attractiveness, the Rosenberg Self-Esteem Scale (Rosenberg, 1975) was given to study participants. The RSE, is a 10-item questionnaire, used to assess overall self-esteem using a 5-point likert scale (from strongly disagree to strongly agree). Scores range from 0 to 40, with higher scores indication greater self-esteem. Research has proven the RSE to be a reliable and validity scale (Rosenberg et al., 1976).

F. *Model Rating Task.* The following section provides an overview of the Model Rating Task that was employed to examine definitions of attractiveness for AA and CC women.

1. Model Rating Task Overview. The Model Rating Task was the stimuli set used in the current investigation to examine definitions of attractiveness by participant ethnicity. AA and CC women were presented with a total of 20 models (10 AA and 10 CC) of five increasing BMI statuses. Four models (2 AA and 2 CC) were presented for each of the five model BMI categories: underweight models (BMI= 17 kg/m^2); normal weight (BMI= 22 kg/m^2); overweight (BMI= 26 kg/m^2); class 1 obese (BMI= 31 kg/m^2); and class 2 obese (BMI= 36 kg/m^2) using a Powerpoint slide presentation from a personal or laptop computer. Participants were asked to rate each of the 20 models on an 8-point attractiveness scale. The Model Rating Task lasted for 40 minutes per assessment session, and was completed at area churches, YMCAs and at USUHS. On average, 12 women (range: 6-17) completed the rating task per session.

2. Model Development. For the current study, models were derived from standardized waist-to-hip ratio (WHR) Tassinary figures widely used in the assessment of body image and attractiveness literature (Tassinary & Hansen, 1998). In order to standardize the WHR of the models, a waist-to-hip ratio of .8, the midpoint WHR, was used to generate the 20 models for this study. Additionally, the Tassinary figures were modified to include higher BMI categories (overweight [BMI= 26 kg/m^2], obese 1 [BMI= 31 kg/m^2], and obese 2 BMI categories [BMI= 36 kg/m^2]). The heavier figures (i.e., overweight, class 1 and 2 obese) added were generated using the Center for Disease Control's (CDC) weight-related circumference data to ensure equal waist-hip intervals in between models, and to standardize models' body proportions based on BMI category (CDC, 1998).

All models were clothed in navy blue apparel to standardize the color of attire. Dressed models wore a navy blue business suit (i.e., skirt and blazer) with black dress shoes, while undressed models were clothed in a navy blue one-piece bathing suit (no shoes). Additionally, models were shaded to include AA figures. Only one shading color (i.e., moderate brown) was used in order to standardize the skin complexion of the AA models, and a standardized brown bobbed hairstyle was given to all models (dressed/undressed; AA/CC) using a professional graphic designer (see Appendix E).

3. Model Presentation. Models were presented on a projection screen by increasing BMI category (underweight to class 2 obese), alternating the ethnicity of the model within each BMI category. The order of the presentation of the 20 models was not randomized. Given the preliminary nature of the current model rating task performed, it was important to employ a systematic approach (i.e., models presented by increasing

BMI) proven to be a reliable and valid methodology by other body image researchers (Stunkard, Sorenson & Schlusinger, 1983; Tassinary & Hansen, 1998; Williamson, 2000).

4. Model Rating Form. One model every 2 minutes was presented on the projection screen. Participants were asked to rate each model's degree of attractiveness on a 1 to 8 likert scale (i.e., 1 representing extremely unattractive, to 8 extremely attractive) during the two-minute period on the Model Rating Forms (see Appendix F). Within and between ethnicity mean attractiveness scores for AA and CC women across BMI categories were obtained.

In addition to the above Model Rating Task performed in this study, participants completed the following self-report measures to examine the impact of ethnic identity, SES, and age on attractiveness ratings by ethnicity:

G. *Self-Report Measures. Impact of Ethnic Identity and SES on Attractiveness Ratings*. Traditionally, factors such as BMI, ethnic identity and SES have been found to contribute to body image. These factors may differentially impact attractiveness ratings among certain subsets of the population. However, few studies have examined the influence of these factors in the context of a more comprehensive definition of attractiveness in this study. Given that body image was believed to be a component of attractiveness in the current investigation, the relationships between the above variables and attractiveness ratings for AA and CC women were assessed. Multivariate statistical analyses were employed to examine the impact of BMI, ethnic identity, SES, and age on the relationship between ethnicity and attire on attractiveness for AA and CC women.

The following self-report questionnaires were given to assess participants' ethnic identity and SES.

1. Ethnic Identity- In the current investigation, the Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992; see Appendix H) was given to both African American and Caucasian women to assess ethnic identity. The MEIM is a 21-item, 4-point (1 = strongly disagree, 4 = strongly agree) instrument to address ethnic identity as a general phenomenon across groups. Mean scores range from 1 to 4, with higher scores denoting increased ethnic identity. Mean scores by participant ethnicity and model presentation were compared in this study.

The components measured by the MEIM are ethnic behaviors (socializing with one's group members and participation in cultural traditions), affirmation and belonging (feelings of attachment to one's group, ethnic pride, attitudes toward one's group), and ethnic identity achievement (understanding one's ethnicity, commitment and secure knowledge of who one is as a member of an ethnic group). The instrument also assesses attitudes toward ethnic groups other than one's own.

The MEIM is a reliable and valid measure, with a reported reliability coefficient for the overall measure of .90. Reliability coefficients for the subscales are .86 for Affirmation and Belonging, .80 for Ethnic Identity Achievement, and .74 for Other-Group Orientation (Phinney, 1992; see Introductory Letter, Appendix I).

In the current investigation, it was hypothesized that ethnic identity would significantly impact definitions of attractiveness by ethnicity and model presentation. The relative degree to which an individual accepts or rejects the values, beliefs, and norms traditionally held by their ethnic group is believed to impact the internalization of

cultural views regarding beauty and attractiveness. Because empirical evidence has demonstrated that African American and Caucasian women have different beauty ideals, resulting from their divergent cultural and ethnic identification, the impact of ethnic identity on attractiveness ratings was examined.

2. Socioeconomic Status (SES). Self-report annual household income and educational level obtained from the Demographic Form were used as indexes for SES in this study (see Appendix C). It was hypothesized that SES will be correlated with ethnic identity, subsequently differentially impacting attractiveness ratings for AA and CC women.

The following self-report measures were used in the validation of the model rating task employed in the current study:

H. *Self-Report Measures. Validation of Model Rating Task.* In order to determine the validity of the Model Rating Task performed in the present study, four theoretically-relevant self-report measures were given to study participants. As part of the validation analyses, the scores from the following measures were correlated with the attractiveness scores obtained in this study. These measures have been proven to be psychometrically sound, and tap into the various domains of body image and attractiveness: cognitive, behavioral, attitudinal, and perceptual.

1. Eating Disorders Inventory (EDI; Garner, 1991; see Appendix S). The EDI is one of the most widely used and psychometrically sound measures available for the assessment of characteristics of eating disorders. The EDI is a 6-point forced choice scale, with higher scores indicating increased eating pathology. In non-clinical settings, the EDI provides an economical means of identifying individuals with significant eating

pathology or those who may be at risk for developing eating disorders. The following two EDI-II subscales were used in the current study:

a. *Body Dissatisfaction* (EDI-BD), a 9-item scale that measures satisfaction with weight-relevant body sites (waist, hips, thighs, etc.). Higher scores on this subscale signify greater body dissatisfaction. This subscale has an coefficient alpha greater than .80 for a wide range of eating disordered and normal control groups (Garner, 1991; Thompson, 1992); and

b. *Drive for Thinness* (EDI-DT), a 7-item scale designed to assess restricting tendencies, desire to lose weight, and fear of weight gain, with higher scores representing greater drive for thinness. This subscale has an internal consistency of .83 for a combined sample of eating disordered individuals and .81-.91 for four samples of nonpatient female controls (Garner, 1991). These two subscales were used in the current investigation as an index for the cognitive-behavioral domain of attractiveness.

2. The Multidimensional Body Self Relations Questionnaire (MBSRQ; Brown, Cash, & Mikulka, 1990; see Appendix T). The MBSRQ is a 69-item self-report inventory for the assessment of one's attitudinal dispositions toward the physical self. The physical self includes the body's physical appearance, the body's "fitness", and the body's health/illness. The dispositions are comprised of evaluative, cognitive, and behavioral components.

The MBSRQ includes seven subscales: Appearance Evaluation (AE), Appearance Orientation (AO), Fitness Evaluation (FE), Fitness Orientation (FO), Health Evaluation (HE), Health Orientation (HO), and Illness Orientation (IO). The MBSRQ also has three

additional multi-item subscales: the Body Areas Satisfaction Scale (BASS), The Overweight Preoccupation Scale (OP) and the Self-Classified Weight Scale (SCWS).

Mean adult female norms reported were: **AE=3.36(0.87)**, AO=3.91(0.60), FE=3.48(0.97), FO=3.20(0.85), HE=3.86(0.80), HO=3.75(0.70), IO=3.21(0.84), BASS=3.23(0.74), **OP=3.03(0.96)**, and SCWS=3.57(0.73) (Cash, Winstead, & Janda, 1985; 1986).

Reliability coefficients for internal consistency and 1-month test-retest were: **AE=.88, .91;** AO=.85, .90; FE=.77, .79; FO=.90, .94; HE=.83, .79; HO=.78, .85; IO=.75, .78; BASS=.73, .74; **OP=.76, .89;** SCWS=.89, .74 (MBSRQ User's Manual, Cash, 2000).

For the purpose of this study, the appearance evaluation (AE) and overweight preoccupation subscales (OP) were used to represent the attundinal component of attractiveness as part of the validation analyses. The AE subscale consists 7-items, while the OW scales contains 4 items. Both subscales are presented on a 5-point likert-type scale (1 to 5), with higher scores representing greater positive self-evaluation and greater overweight preoccupation, respectively.

3. The Appearance Schemas Inventory (ASI-R; Cash & Labarge, 1996; see Appendix U). The ASI-R is a 20-item self-report inventory that assesses an individual's psychological investment in their physical appearance, tapping into the cognitive domain of body image. The scale consists of two subscales: Self-Evaluative Salience and Motivational Salience on a 5-point likert-type scale (1 to 5), with scores ranging from 20 to 100. Self-Evaluative (AS) Salience reflects the extent to which individuals define or measure their self-worth by their physical appearance, while Motivational Salience pertains to the extent persons attend to their appearance and engage in appearance-

management behaviors. The AS subscale consists of 12 items, with higher scores

indicating increased negative self-evaluation. The AS subscale was used in the current

validation analyses and has an internal consistency of .83 (Cash & Harbosky, 2003).

       4. Figure Rating Scale. In order to assess participants' perceived current and ideal

body size (i.e., the perceptual component of body image), the Figure Rating Scale (FRS;

Stunkard, Sorenson & Schlusinger, 1983) was administered to study participants (see

Appendix V). The Figure Rating Scale is a figural instrument, which consists of nine

schematic body drawings ranging in size from very thin to obese with height held

constant. The FRS was developed based on the obesity literature as a tool to assess

overall body satisfaction; thus, its silhouettes provide a greater range in figural body

sizes. Each participant was asked to select which figure looked most like them currently

(i.e., their perceived current body size) and which figure looked most like they would

prefer to look (i.e., ideal body size). The FRS measures the discrepancy between

perceived current and ideal body size. The difference or discrepancy scores calculated

are an index of the degree of body dissatisfaction, with higher scores indicating greater

body dissatisfaction. In addition, the direction of dissatisfaction is indicated by a + or –

score. Negative discrepancy scores indicate a desire to be thinner, while positive scores

signify a desire to have a larger body size. The FRS has demonstrated adequate test-

retest reliability over a 2-week period (female: ideal - .71; female: self-think- .89; and

female: self-feel- .83). Discrepancy scores were correlated with attractiveness scores to

determine the validity of the Model Rating Task.

Procedure

Recruitment. Advertisements for a study on definitions of attractiveness among African American and Caucasian women were placed in local area newspapers in Washington DC metro area. Flyer advertisements were placed in community centers, churches, and research institutions in the metro area (see Appendix J).

Phone Screening. Each prospective participant was asked to telephone the university to learn more about the study and to complete a phone screen prior to entry into the study. The telephone screen explained the purpose of the study and reviewed the components of study participation. In addition, the phone screen determined whether a potential volunteer met inclusion criteria (see Appendix B). Those excluded, based on the phone screen, were thanked for their interest in the study (see Phone screen script in Appendix K).

Depression Screening. Each prospective participant meeting inclusion criteria, based on phone screen, was mailed the BDI-II to assess degree of depressed mood (see Appendix D). Each volunteer was asked to complete the BDI-II and return this survey in a self-addressed envelope provided by the principal investigator. Once the BDI-II survey was returned, it was scored by a member of the research team. Women who were still eligible to take part in the study (i.e., BDI-II score < 14) were contacted by phone and given a study identification number from 001 to 160. Women not deemed eligible (i.e., BDI-II score $\geq$ 13) were contacted by phone to explain why they are not eligible to take part in the study (see Depression script, Appendix Q). Those volunteers who scored $\geq$14 or anything other than zero on the BDI-II item #9 (suicide question), regardless of total BDI-II score, were mailed a list of health services in the community (see Appendix R). Contact with participants was documented.

Information Packet. Each eligible volunteer was mailed an information packet. The

packet included an Informed Consent Form that outlined the purpose of study, procedures

involved in study participation, and potential risks and benefits of taking part in the study

(see Appendix L) as well as a Demographic Form (see Appendix C). Additionally, each

packet contained questionnaires that assessed participant's ethnic identity, self-esteem,

and body image. Women were asked to review the Informed Consent Form and

complete the surveys prior to their arrival to the 90-minute visit at USUHS or community

site (e.g., church, YMCA).

Review of Packet and Randomization. The principal investigator called each

participant to determine whether they received their packet and if they were still

interested in participation within 1-week of mailing the packet. During this phone call,

the principal investigator reviewed the Informed Consent Form and questionnaires with

the volunteer. Participants were informed that they would be asked to sign the Informed

Consent Form, upon arrival to the 90-minute visit. After, the participant verbally agreed

to participate in the study, the principal investigator randomly assigned her to one of two

model rating conditions: novel (i.e., dressed) or standard (i.e., undressed), within ethnic

group.

Randomization into experimental conditions was in the order of verbal informed

consent obtainment (see Randomization chart in Appendix M). The participant was then

told the date, time, and location of their group 90-minute visit based on their

randomization assignment. Generally, 10 to 20 women were scheduled per interview

session. Interviews were scheduled within two weeks of this phone encounter. In

addition, a reminder letter was mailed or faxed to each participant within 48 hours of this

phone call, informing the participant of their scheduled visit and instructions to get on the naval base and to USUHS if applicable (see Appendix N and O, respectively).

Visit Part I: Questionnaires, Anthropometrics, Consent, and Depression Screen. A reminder call, confirming the date, time, and location of the visit, was placed to each participant two days prior to their scheduled visit by the principal investigator. Upon arrival, the questionnaires were collected and reviewed by the research staff. Height and weight measurements were taken on each participant by principal investigator at the beginning of the visit (Weight Log, see Appendix G). The Informed Consent Form was reviewed by principal investigator and written informed consent was obtained from each participant (see Appendix L). This part of study participation lasted approximately 40 minutes.

Each participant was then asked to complete the BDI-II for a second time to determine whether volunteer had an elevated depressed mood prior to completing the model rating activity. The BDI-II was scored immediately by a member of the research staff. No participant reported an elevated BDI-II score at the time of the 90-minute visit.

Visit Part II: Model Rating Task. Participants completed a 40-minute group Model Rating Task. The task was administered to groups of 6-17 women per session (mean = 12 women) using a Powerpoint presentation. Each experimental condition (i.e., dressed or undressed) contained 20 models (4 models per BMI category): 2 underweight AA models and 2 underweight CC models (BMI= 17 kg/m^2), 2 normal weight AA models and 2 normal weight CC models (BMI= 22 kg/m^2), 2 overweight AA models and 2 overweight CC models (BMI= 26 kg/m^2), 2 obese AA models and 2 obese CC models (BMI= 31 kg/m^2), and 2 extremely obese AA models and 2 extremely obese CC models

(BMI= 36 kg/m^2); see Models in Appendix E. Models were presented on a projection

screen by increasing BMI category, alternating the ethnicity of the model within each

BMI category. Models within the dressed condition wore a navy blue business suit (skirt

and blazer) with black dress shoes, whereas undressed models wore a navy blue one-

piece bathing suit.

Prior to beginning the rating task, participants were given a brief overview of the task

and instructions stating how to complete the model rating forms for each of the 20

models (see Appendix A). Each participant was given 20 Attractiveness Rating Forms for

each of the 20 models (see Appendix F). One model every 2 minutes was presented on

the projection screen. During that two-minute period, each model was given one score

from each participant, an attractiveness score. Participants scored each of the 20 models

on degree of attractiveness using an 8-point likert scale with 1 indicating "extremely"

unattractive, to 8 "extremely" attractive.

Mean attractiveness scores were calculated for each model BMI category. Mean

attractiveness scores ranged from 1 to 8 for each BMI category, with higher mean scores

denoting increased attractiveness. Mean attractiveness scores for AA and CC women

were compared across BMI categories.

Compensation. Women were paid $50.00 for completion of the questionnaire

packet and the 90-minute visit. Participants received their mailed check or cash payment

within three weeks of study participation (see Payment Receipt Form; Appendix P).

Data Regulation. Data was entered into a SPSS data file by ID number and

participant data files were stored in a locked file cabinet in a locked office to ensure

participant confidentiality. Data was analyzed using SPSS 12.0 statistical software program.

Adverse Conditions Plan. No adverse events occurred as part of participation in this study.

Research Design and Analysis

Study Design and Statistical Power. The study was a 2 (AA and CC; rater ethnicity) x 2 (attire; novel/dressed or standard/undressed) x 2 (AA or CC; model ethnicity) x 5 (model BMI) fully randomized mixed subjects design. Power analyses, using Gpower statistical software (Faul & Erdfelder, 1992), were conducted to determine adequate power and sample size to compare mean attractiveness scores by ethnicity and attire. To achieve a medium effect size (f =0.25), which was based on the effect sizes reported in the preexisting body image literature (Emery & Simons, 2001), with alpha= 0.05 and power= 0.80 (Cohen, 1988; Cohen & Cohen, 1983), a sample size of N=160 was needed for a critical $F_{(1, 158)} = 2.032$.

DATA ANALYTICAL STRATEGIES

Model Stimuli Analyses. Five a priori planned comparisons (i.e., mean attractiveness scores for the five model BMI categories by participant ethnicity and attire) were determined to be "meaningful" to test each hypothesis. One MANOVA model was employed to test Hypotheses 1-3. Wilks' Lambda was used to test significance of within-subjects factors. Analysis of Variance F-tests were used to test between-subjects factors effects when between-subjects and within-subjects factors did not interact. Follow-up ANOVA tests were conducted only when MANOVA revealed significant findings. Hypothesis 4 was analyzed using Multiple Regression Correlation. The following section

outlines the analytical strategies used for demographic, psychological, and attractiveness data as well as the secondary analyses employed in the current study.

Demographics/Psychological Data:

1. A 2 (participant ethnicity) x 2 (attire) ANOVA was employed to compare participants' on age, years of education, and BMI.

2. To compare participants on categorical demographic variables (marital status, employment status, annual household income, and county of residence), separate Chi-square analyses for participant ethnicity and attire were performed.

3. A 2 (participant ethnicity) x 2 (attire) MANOVA was performed to examine differences in key psychological factors (depression, self-esteem, eating pathology, and ethnic identity) between African American and Caucasian participants.

Hypothesis One thru Three:

A 2 (participant ethnicity) x 2 (attire) x 2 (model ethnicity) x 5 (model BMI status) MANOVA was used to examine the effects of attire, participant ethnicity, and model ethnicity on attractiveness ratings across the five model BMI categories. Results from this MANOVA were dismantled in the context of the three main study hypotheses.

The focus of Hypothesis One was to examine the effects of attire on attractiveness. Hypothesis Two focused on the examination of body size on attractiveness ratings. In addition, to examine the impact of participant's BMI for African American and Caucasian women across the five model BMI categories, a 2 (participant ethnicity) x 2 (participants' BMI status) MANOVA was employed. Based on BMI, participants were divided into two BMI categories: overweight or nonoverweight. For Hypothesis Three, the effects of model ethnicity were examined.

Hypothesis Four: SES and Ethnic Identity on Attractiveness

Hypothesis Four focused on the impact of SES and Ethnic Identity on attractiveness ratings. To examine the effects of SES and ethnic identity on attractiveness for AA and CC raters, a linear regression correlation analysis was performed. Independent variables included participant ethnicity, attire, years of education, income, and ethnic identity. The dependent measure was total mean attractiveness score.

Secondary Analyses: Health and Attractiveness Rating Task

1. Health ratings. A 2 (participant ethnicity) x 5 (model BMI status) MANOVA was employed to examine the effects of participant ethnicity and model BMI on health scores. Additional correlational and descriptive data were obtained through self-report measures and attractiveness scores.

2. Relationship of Attractiveness to Body Image and Eating Pathology. In order to determine the relationship of attractiveness ratings to body image and eating pathology, four approaches were employed.

  a. Attractiveness scores (ATT), collapsed across model BMI and participant ethnicity, were correlated with four widely-used self-report measures of attractiveness and body image (Table 13).

  b. These same analyses were conducted for AA and CC participants separately (Table 14 and 15, respectively).

  c. Attractiveness scores for underweight, normal weight, and obese models were also correlated with the four self-report measures by participant ethnicity.

  d. The self-report measures were correlated with each other as part of follow-up analyses.

Data Reporting Strategy

Results of the full MANOVA model are presented in Table 5. The full

MANOVA model was further dismantled and described in three sections corresponding

to Hypothesis 1, 2, and 3.

RESULTS

In the present study, two outliers (25 and 98) were included in the demographic

information, but excluded from all other analyses. These cases fell three standard

deviations or more from the group mean attractiveness score. Both were African

American participants and they rated all of the dressed models as extremely attractive,

independent of experimental manipulation, possibly reflecting a response bias.

Recruitment Sources

Seventy-two (25 AA; 47 CC) (45.0%) participants were recruited from newspaper

advertisements, 50 (48 AA; 2 CC) (31.3%) from area churches, 21 (4 AA; 17 CC)

(13.1%) from local YMCA locations, and 17 (3 AA; 14 CC) (10.6%) through participant

referral. Overall, African American participants were more likely to be recruited from

churches, while more Caucasians were recruited from newspaper ads, $\chi^2(3)= 64.21$,

p<.01.

Demographic Information

Demographic and anthropomorphic data are summarized in Tables 1-3. Table 1

presents age, education, and BMI data by ethnicity and attire. A 2 x 2 (participant

ethnicity x attire) ANOVA was conducted to examine the differences in participant BMI,

age, and years of education. No significant participant ethnicity x attire interactions were

found for BMI, $F(1,156)= 1.91$, ns, years of education, $F(1,156)= .001$, ns or age,

F(1,156)= .37, ns. No significant differences were found between African American and Caucasian women on years of education, F(1,156)= 1.68, ns. However, African American participants tended to be older and have a greater body mass index (BMI) compared to Caucasian participants, F(1,156)= 4.83, p<.05 and F(1,156)= 51.02, p<.01, respectively.

Table 2 presents data for marital status, annual income, and county of residence by participant ethnicity. Ethnic groups also differed on marital status, $\chi^2(5)$= 13.17, p <.05, employment status, $\chi^2(4)$= 24.12, p<.01, and average annual household income, $\chi^2(6)$= 41.71, p<.01. African American women were more likely to be divorced, work full-time, and have a lower annual household income relative to Caucasian counterparts.

Table 3 presents data for marital status, annual income, and county of residence by attire. The attire conditions did not differ on age, F(1,156)= .59, ns, BMI, F(1,156)= .92, ns, education, F(1, 156)= 2.40, ns, employment status, $\chi^2(4)$= 4.11, ns, or annual household income, $\chi^2(6)$= 12.21, p=.06 by attire. However, participants assigned to the undressed condition were more likely to be single than women in the dressed model condition $\chi^2(5)$= 14.64, p <.05.

<u>Psychological Factors</u>

Table 4 presents mean scores for the Beck Depression Inventory (BDI-II), the Eating Disorders Inventory (EDI-2) subscales, the Rosenberg Self-Esteem Scale (RSE), and the Multi-Group Ethnic Identity Measure (MEIM) scores by ethnicity and treatment group. Compared to normative data for the BDI-II (Beck et. al., 1996), participants' mean BDI indicated no significant depressive symptoms. Norms for non-eating populations on the three key eating pathology subscales of the EDI-2 (drive for thinness

(DT), bulimic behavior (BUL), or body dissatisfaction (BD) are, DT=5.0 (.22), BUL= 2.0 (.14), and BD= 10.2(.32) (Garner et. al., 1983). Mean scores indicated no significant eating pathology (see Table 4). Norms for community samples on the MEIM are (mean=3.19, SD=.61) and (mean=2.44, SD=.79) for African Americans and Caucasians, respectively (Phinney & Alipuria, 1992). As expected, higher MEIM scores were reported among African American women relative to Caucasian women in the present study.

A 2 x 2 (participant ethnicity x attire) MANOVA was used to examine differences in psychological factors by ethnicity and attire. There was no participant ethnicity x attire interaction, Wilks Lambda $F(6,149)= 1.10$, ns, or main effect for attire, Wilks Lambda $F(6,149)= 1.10$, when psychological factors were considered collectively. There was a main effect for participant ethnicity, Wilks Lambda $F(6,149)= 13.72$, $p<.01$.

Follow-up univariate analyses revealed no ethnicity x attire interactions for ethnic identity, $F(1,154)= 1.06$, ns; self-esteem, $F(1,154)= .17$, ns; depression, $F(1,154)= .63$, ns; drive for thinness, $F(1,154)= 3.07$, $p= .08$; bulimia, $F(1,154)= .59$, ns; or body dissatisfaction, $F(1,154)= 1.12$, ns. There was a significant main effect for participant ethnicity for ethnic identity and self-esteem such that African American tended to have higher ethnic identity and self-esteem relative to their Caucasian counterparts, $F(1,154)= 59.18$, $p<.01$ and $F(1,154)= 18.67$, $p <.01$, respectively. No significant differences were found on depression, $F(1,154)= .03$, ns; drive for thinness, $F(1,154)= 1.24$, ns; bulimia, $F(1,154)= .04$, ns; or body dissatisfaction, $F(1,154)= .25$, ns scores between African American and Caucasian participants. Similar to earlier work, despite African American women being on average obese, and Caucasian women on average normal weight,

African American and Caucasian women had comparable levels of body dissatisfaction (Allen et.al., 1993).

There were no differences between women in the attire groups on depression, $F_{(1,154)}= 2.51$, ns; drive for thinness, $F_{(1,154)}= .58$, ns; body dissatisfaction, $F_{(1,154)}= .06$, ns; self-esteem, $F_{(1,154)}= 1.69$, ns or ethnic identity, $F_{(1,154)}= .02$, ns. Participants assigned to the undressed condition scored higher on the bulimic subscale of the EDI, $F_{(1,154)}= 5.75$, $p <.05$; see Table 4. However, mean bulimic scores for women in both the undressed, mean= .95(2.16) and dressed, mean= .32(.82) conditions did not indicate significant clinical pathology.

<u>Attractiveness Ratings</u>

Table 5 summarizes the full MANOVA model for mean attractiveness scores. A 2 (participant ethnicity) x 2 (attire) x 2 (model ethnicity) x 5 (model weight status) MANOVA was employed. Model ethnicity and weight status were within-subjects factors. Participant ethnicity and attire were between-subjects factors. Dependent variables were mean attractiveness scores at each level of the within-subjects factors.

There was no four-way interaction (participant ethnicity x attire x model ethnicity x model weight status), Wilks Lambda $F_{(4,151)}= 1.21$, ns. Of particular relevance to this study, there was no three-way participant ethnicity x attire x model ethnicity interaction, Wilks' Lambda $F_{(1,154)}= .002$, ns.

The results from this MANOVA are further described and dismantled in the subsequent three sections, corresponding to hypotheses 1 thru 3.

Hypothesis One: The Impact of Attire on Attractiveness

Table 6 presents attractiveness means by model BMI, model ethnicity, and attire. Table 7 presents attractiveness means by model BMI, model ethnicity, and participant ethnicity. The statistical tests for both the model BMI x ethnicity x attire analyses and for model BMI x model ethnicity x participant ethnicity analyses are summarized in Table 8.

The effects of the between-subjects factor attire (dressed and undressed) on attractiveness scores were analyzed using MANOVA. No significant interactions between attire and the within-subjects factors (model ethnicity and model BMI) emerged. No three-way attire x model ethnicity x model weight interaction emerged, $F(4,151)=$ 1.82, ns. No two-way attire x model ethnicity, or attire x model BMI interactions emerged, Wilks' Lambda $F(4,151)=$ .73, ns and Wilks' Lambda $F(4,151)=$ 1.58, ns, respectively. The effects of attire on mean attractiveness scores did not differ by model ethnicity or model weight.

Follow-up analyses revealed no 3-way attire x model BMI x model ethnicity, $F(4,156)=$ .82, ns. In addition, no attire x model ethnicity, $F(1,156)=$ .76, ns, or attire x model BMI, $F(4,156)=1.96$, ns emerged.

The effect of attire on attractiveness scores did not vary by participant ethnicity, As summarized in Table 8, there was no participant ethnicity x attire interaction, $F(1,154)=$ 1.49, ns, or main effect for participant ethnicity, $F(1,154)=$ .52, ns (see Table 8). Figures 1 and 2 depict attractiveness ratings for dressed and undressed condition across the five BMI categories collapsed across participant ethnicity for African American and Caucasian models. There was a main effect for attire such for both AA

and CC women, dressed models were rated as more attractive than undressed models for both AA and CC models, F(1,154)= 10.42, p <.01; see Figures 1 and 2, respectively.

Follow-up univariate analyses revealed a main effect of attire on attractiveness for the UW, F(1,154)= 3.05, p ,.05; NW, F(1,154)= 4.11, p<.05; OW, F(1,154)= 6.20, p<.05; OB1, F(1,154)= 10.28, p<.01; and OB2, F(1,154)= 12.25, p<.01 models.

In sum, in partial support of Hypothesis 1, African American women did find dressed models more attractive than undressed models. Unexpectedly, however, so did Caucasian participants.

Hypothesis Two: The Impact of Body Size on Attractiveness

Silhouette ratings for African American and Caucasian models are presented separately in Figures 3 and 4, respectively. African American and Caucasian women's ratings are plotted for the five BMI categories. The effects of body size on attractiveness differed by participant ethnicity and model ethnicity. A significant participant ethnicity x model ethnicity x model BMI interaction was found, Wilks' Lambda F(1,154)= 2.85, p= .03. When AA and CC participants rated UW AA models, CCs rated these models more attractiveness (see Figure 3), whereas CC models at the UW category were rated even more attractiveness by CC raters compared to AA raters; see Figure 4.

There was a significant participant ethnicity x model BMI interaction, Wilks' Lambda F(4,151)= 3.65, p = <.01. In partial support of Hypothesis 2, Caucasian raters, relative to AA raters, tended to rate UW models as more attractive, whereas at every other weight category, AA participants rated the models as more attractive compared to CC raters. Figures 3 and 4 clearly illustrate the differences in attractiveness ratings across model BMI categories for African American and Caucasian participants.

A main effect for model BMI was found such that UW models were rated as most attractive compared to the other BMI categories by both AA and CC participants, Wilks' Lambda $F_{(4,151)}= 198.46$, $p<.01$. Surprisingly, AA women rated UW models as most attractive, which is in contrast to the expected relationship posited in Hypothesis 2; see Table 7. For both AA and CC participants, as model BMI increased, attractiveness decreased, $r= -.83$, $p<.01$ and $r= -.86$, $p<.01$, respectively. No main effect for participant ethnicity on attractiveness emerged, $F_{(1,154)}= .52$, ns.

Follow-up analyses to test the simple main effects of model weight for each participant ethnicity/model ethnicity combination (AAraters/AAmodels; AA raters/CCmodels; CCraters/AAmodels; and CCraters/CCmodels) were conducted. Univariate ANOVAs revealed that model weight had the strongest impact on attractiveness scores. Attractiveness scores decreased significantly with increasing model BMI, independent of model ethnicity or participant ethnicity. AA raters/AAmodels, $F_{(74)}= 86.50$, $p<.01$; AAraters/CC models, $F_{(74)}=60.39$, $p<.01$; CCraters/AAmodels, $F_{(76)}=115.68$, $p<.01$; and CCraters/CCmodels, $F_{(76)}=119.03$, $p<.01$.

Impact of Participant BMI Status on Attractiveness Scores

Table 9 presents frequency data for participants' BMI status by participant ethnicity. Few, 1.3% (n=2), study participants were UW, 36.3% (n=58) were normal weight (NW), 30.0% (n=48) were overweight (OW), 15.6% (n=23) were class 1 obese (OB1), 8.8% (n=14) were class 2 obese (OB2), and 8.1% (n=13) were above class 2 obese. Of the participants who were underweight and normal weight, 81.7% (n=49) were Caucasian, whereas 69.0% (n=69) of the overweight and obese participants were African American.

Table 10 presents mean attractiveness scores by participant ethnicity and participant BMI status. To determine whether differences existed on attractiveness scores among women who are were under or normal weight compared to those who are overweight or obese, the data was split based on NHLBI BMI guidelines (NHLBI, 1998b). Mean attractiveness scores across model BMI categories were compared between underweight/normal weight participants (BMI $\leq$ 24.99 kg/m^2; n= 60) and overweight/obese participants (BMI > 25.00 kg/m^2; n=98), using a 2 x 2 (participant ethnicity x participant BMI) MANOVA. There was no ethnicity x BMI interaction, Wilks' Lambda $F(5,152)$= 1.08, ns. There were no main effects for participant ethnicity, Wilks' Lambda $F(5,152)$= .87, ns or participant BMI, Wilks' Lambda $F(5,152)$= 1.18, ns.

Univariate analyses revealed no participant ethnicity x participant BMI interaction for the UW, $F(1,156)$= 2.66, ns; NW, $F(1,156)$= .89, ns; OW, $F(1,156)$= .00, ns, OB1, $F(1,156)$=.04, or OB2, $F(1,156)$= .01, ns models. No main effects for participant ethnicity or participant BMI on attractiveness scores emerged.

In sum, participant BMI did not differentially impact attractiveness scores for AA and CC women as expected. However, in partial support of hypothesis 2, CC participants, independent of their BMI status, did rate thinner models as more attractive than heavier models. Surprisingly, both lighter and heavier AA women also rated thinner models as more attractiveness than heavier models, as indicated by higher mean attractiveness scores.

Hypothesis Three: The Impact of Model Ethnicity on Attractiveness

Contrary to expectation, there was a trend for a participant ethnicity x model ethnicity interaction, Wilks' Lambda $F(1,154)$= 3.72, p= .06. Both AA and CC women

tended to rate AA models more attractive than CC models, however, AA women had a greater preference for AA models compared to CC women (see Table 5). There was no model weight x model ethnicity interaction found, Wilks' Lambda $F_{(4,151)}= 1.46$, ns. Figure 5 presents mean attractiveness scores by model ethnicity and model BMI. As illustrated by Figure 5, a main effect for model ethnicity on attractiveness emerged such that AA models were rated as more attractive than CC models at each model BMI category collapsed across participant ethnicity, Wilks' Lambda $F_{(1,154)}= 45.71$, $p<.01$.

Follow-up analyses were conducted to test the simple main effects of participant ethnicity and model ethnicity at each of the five model BMI categories. For the UW model BMI category, there was no participant ethnicity x model ethnicity interaction, $F_{(1,156)}= 2.26$, ns. There was a main effect for participant ethnicity, $F_{(1,156)}= 6.46$, $p<.05$. As expected CC women rated CC and AA UW models more attractive compared to AA women. A main effect for model ethnicity also emerged, $F_{(1,156)}= 26.39$, $p<.01$.

Additionally, univariate tests revealed a participant ethnicity x model ethnicity at the NW model category such that AA women rated AANW models more attractive than did CC women, whereas NWCC models were rated similarly by AA and CC women, $F_{(1,156)}= 11.00$, $p<.01$. No other significant 2-way (participant ethnicity x model ethnicity) interactions emerged. In addition, significant main effects for model ethnicity were found at the other four model BMI categories: NW, $F_{(1,156)}= 27.91$, $p<.01$; OW, $F_{(1,156)}=21.32$, $p<.01$; OB1, $F_{(1,156)}=10.01$, $p<.01$; and OB2, $F_{(1,156)}= 17.16$, $p<.01$ (see Figure 5). There was no main effect of participant ethnicity at the NW, OW, OB1 or OB2 model BMI categories (see Table 5).

Hypothesis Four: Impact of Years of Education and Income (SES) and Ethnicity on Overall Attractiveness

It was expected that key factors such as years of education, income, and ethnic identity would differentially impact overall attractiveness ratings for AA and CC participants. A stepwise regression analysis was used to determine the relative contribution of these factors to attractiveness ratings. Table 11 presents the regression coefficients for the overall attractiveness score. Participant ethnicity and attire were entered first into model, followed by participant ethnic identity, and years of education. Income was omitted from the model because it was significantly correlated with years of education, r= .23, p<.01. In addition, years of education was found to be a better predictor of overall attractiveness than income, B= -.034 vs B= -.029, respectively. Thus, years of education served as the proxy for SES in the present model.

The overall regression model was significant, $F(5,152) = 3.15$, p= .01 explaining 9% of the variance in overall attractiveness score , R= .31, R^2=.094. Attire was the only significant predictor of attractiveness such that dress was associated with .67 increase in overall attractiveness score, t= 3.00, p< .01. Participant ethnicity, ethnic identity, years of education, or participant x attire interaction did not significantly predict attractiveness scores; see Table 11. Unexpectedly, SES and ethnic identity status was not associated with differences in attractiveness for AA or CC women.

Secondary Analyses:

The Impact of Participant Ethnicity and Model Weight Status on Health Scores.

Mean health scores across model BMI categories are presented in Table 12. Figure 6 presents mean health scores by participant ethnicity and model BMI. A 2

(participant ethnicity) x 5 (model BMI) MANOVA was employed to examine health rating across model BMI categories. As depicted in Figure 6, a participant ethnicity x model BMI interaction emerged such that CC women rated UW models more healthy than AA women, whereas AA women rated NW, OW, OB1, OB2 models more healthy compared to CC women, Wilks' Lambda $F_{(4,153)}= 2.78$, $p<.05$. There was a significant main effect for model weight on health scores, Wilks' Lambda, $F_{(4,153)}= 329.56$, $p<.01$. No main effect for participant ethnicity was found, Wilks' $F_{(1,156)}= .00$, ns; see Figure 6. Overall, thinner models were rated as healthier relative to normal weight, overweight, and obese models. Follow-up tests revealed a significant main effect for participant ethnicity on health ratings at the UW model BMI category such that CC women rated these models as more healthy than did AA women, $F_{(1,156)}= 8.26$, $p<.01$. The was no main effect for participant ethnicity on health scores at the NW, OW, OB1, OB2 model BMI categories (see Figure 6).

Correlations suggested a strong positive correlation between attractiveness and health scores, $r= .86$, $p<.01$ such that as attractiveness scores increased so did health ratings. Additionally, positive correlations between attractiveness and health ratings were found at each model BMI category: UW, $r= .72$, $p<.01$; NW, $r=.86$, $p<.01$, OW, $r=.81$, $p<.01$; OB1, $r=.85$, $p<.01$, and OB2, $r=.84$, $p<.01$.

In order to examine the impact of weight status and participant ethnicity, the Figure Rating Scale (FRS; Stunkard, Sorenson & Schlusinger, 1983) was administered to study participants. The FRS is a figural instrument, which consists of nine schematic body drawings ranging in size from very thin to obese with height held constant. For the purposes of these analyses, participants were asked to select which figure was most and

least healthy from the 9 figures provided. Analyses determined that 77.2% (n=122; 66AA and 56CC) of the women chose the heaviest model as least healthy, whereas 20.9% (n=33; 11AA and 22CC) of the women viewed the thinnest model as least healthy. In general, models 3 and 4 of the Figure Rating Scale, the slightly underweight models, were chosen as most healthy, 55.1% (n=87; 41AA and 46CC) and 29.1% (n=46; 23AA and 23CC), respectively.

The Relationship of Attractiveness Ratings to Body Image and Eating Pathology.

In order to examine the relationship of the attractiveness ratings generated from the Model Rating Task to accepted measures of body image dissatisfaction and eating pathology, self-report measures and BMI were correlated. Table 13 depicts correlations collapsed across participant ethnicity. Tables 14 and 15 present correlations between these same self-report measures for African American and Caucasian participants, respectively.

Given that differences in BMI status may differentially impact the above relationships, attractiveness scores from three model BMI categories (i.e., underweight (UW) [BMI= 17 kg/m^2], normal weight (NW) [BMI= 22 kg/m^2], and obese (OB) [BMI= 34 kg/m^2]) were used. The mean attractiveness score of the two obese categories (OB1 and OB2) was used to represent the obese model category.

The four self-report measures used were chosen to capture the different dimensions of the attractiveness/body image construct. Mean scores for the self-report measures by ethnicity are presented in Table 16. There were no significant differences found between AA and CC women on EDI, MBSRQ, and ASI (see Table 16). AA and CC women reported similar levels of drive for thinness, body dissatisfaction, overweight

preoccupation, and negative cognitions. This is of particular interest given the AA

women were on average obese, whereas the CC women were on average normal weight.

Overall, when looking at data collapsed across ethnicity, it appears that increased

pathology was related to decreased attractiveness (ATT) scores. Women with greater

drive for thinness (DT), overweight preoccupation (OP), and negative cognitions (AS)

were more likely rate models as less attractive. Specifically, significant inverse

relationships emerged between attractiveness scores for NW and OB models and drive

for thinness (DT), overweight preoccupation (OP), and self-evaluation (AS) subscales. It

appears that as drive for thinness (DT), overweight preoccupation (OP), and negative

self-evaluation (AS) among participants increased, attractiveness scores for NW and OB

models decreased (see Table 13). However, no this was not associated for the UW

attractiveness scores.

When African Americans were analyzed separately, negative correlations existed

between drive for thinness (DT) and negative self-evaluation (AS) and OB attractiveness

scores such that as attractiveness scores increased for models of the OB BMI category,

drive for thinness (DT) and negative self-evaluation (AS) decreased, r= -.23, p<.05 and

r=-.27, p<.01, respectively. No significant relationships emerged for the UW model

category (see Table 14).

For Caucasians, different findings emerged. Significant inverse associations were

found between drive for thinness (DT) and attractiveness scores for NW and OB models.

As drive for thinness increased, NW attractiveness scores, r= -.41, p<.01 and OB scores,

r= .-.36, p<.01 decreased. Unique to CC women, negative correlations existed between

overweight preoccupation (OP) and attractiveness scores for NW and OB models (see

Table 15). For Caucasian women, increased overweight preoccupation (OP) was associated with decreased attractiveness scores for both NW, r=-.35, p<.01 and OB, r=-.28, p<.01 models. These relationships were not observed for African American women (see Tables 13). Such findings provide some evidence for the adoption of the thin ideal (i.e., greater drive for thinness) and preoccupation with increased weight among Caucasian women.

Additionally, data suggest that the attractiveness rating task most closely tapped into the behavioral, attitudinal, and cognitive dimensions of attractiveness and body image for both African American and Caucasians. This is evidenced in the correlations between attractiveness and the EDI drive for thinness (DT), MBSRQ overweight preoccupation (OP), and the ASI negative cognitions (AS) scales; see Table 13. Figure 7 illustrates the presence (+) or absence (-) of relationships found between attractiveness (i.e., scores for the Model Rating Task), eating pathology, and body dissatisfaction in the present study. Correlations suggest that the Model Rating Task tapped into the construct of eating pathology assessed by the EDI drive for thinness, MBSRQ-OP, and ASI-AS. However, the lack of associations found between the Model Rating Task and the construct of body dissatisfaction, as assessed by the EDI body dissatisfaction subscale (BD), FRS, and the MBSRQ appearance evaluation (AE) subscale warrants further investigation, given other research that has linked the constructs of attractiveness and body dissatisfaction (Dawson, 1988; Joiner & Perez, 2003; Thompson & Heinberg, 1999; see Table 13).

Secondary Correlational Analyses. Follow-up correlations were conducted to examine the relationship between the body image and attractiveness questionnaires used

in the above correlational analyses. As expected, the EDI, MBSRQ, ASI, and the FRS

were correlated; see Table 13. Additionally, given this study's premise that depressed

mood and participant BMI were conceptually related to attractiveness and body image

evaluation and may significantly impact attractiveness scores, attractiveness scores were

correlated with Beck Depression Inventory (BDI-II) scores and participant BMI. As

expected, the BDI-II was negatively correlated to attractiveness scores (ATT), r=-.19,

p<.05; see Table 13.

However, no significant relationships emerged between participant BMI and

attractiveness scores (ATT), collapsed across model BMI categories, for either AA or CC

women (see Tables 14 and 15, respectively). When model BMI status was accounted for,

no significant associations were found between participant BMI and attractiveness scores

at four model BMI categories (i.e., underweight, overweight, class1 and class 2 obese) for

AA or CC participants. However, a significant positive relationship was found between

participant BMI and attractiveness scores at the NW model BMI category for AA

women, r= .24, p<.05. For AA women, as their BMI increased, attractiveness scores for

NW models increased (see Table 14).

Hypothesis 1. The Impact of Attire on Attractiveness- Partially Supported

As expected, African American women did rate dressed models more attractive than undressed models. However, unexpectedly, CC women also rated the dressed models more attractive.

Hypothesis 2. The Impact of Body Size on Attractiveness- Partially Supported

As expected, CC women rated the thinner models as most attractive. More surprising was that African American women also rated the thinner models as more attractive relative to heavier models. Overall, AA and CC women rated the models across model BMI categories similarly.

Unexpectedly, participant BMI did not differentially impact attractiveness scores. Both lighter and heavier AA and CC women rated the thinner models more attractive.

Hypothesis 3. The Impact of Ethnicity on Attractiveness- Partially Supported

It was expected that AA women would rate AA models more attractive than CC models, whereas CC women would rate CC models more attractive than AA models. Unexpectedly, both AA and CC women preferred AA models.

Hypothesis 4. The Impact of SES and Ethnic Identity on Attractiveness Ratings- Not Supported

SES and ethnic identity were key factors expected to differentially impact attractiveness ratings for AA women.
Unexpectedly, SES and ethnic identity did not differentially impact overall attractiveness for AA or CC women. Independent of SES and ethnic identity, AA and CC women rated the underweight, dressed models as most attractive.

Secondary Analyses

1. Health Ratings.

CC women rated UW models more healthy than AA women, whereas AA women rated NW, OW, OB1, OB2 models as more healthy compared to CC women
CC and AA women rated UW models most healthy compared to all other models.

2. Attractiveness' Ratings: Relationship to Body Image and Eating Pathology.

Overall, the MRT scores were negatively correlated with eating pathology scores (i.e., drive for thinness, overweight preoccupation, and negative self cognitions) for both AA and CC women. However, the MRT scores were not correlated with body

dissatisfaction variables (i.e., discrepancy, appearance evaluation, and EDI- body dissatisfaction) for both AA and CC women.

DISCUSSION

Why Didn't Attractiveness Differ by Ethnicity and Why Was "Thin" In for African American Women?

Contrary to the study hypotheses, there were few differences between Caucasian and African American women's attractiveness ratings. They reported similar views of attractiveness as it related to attire, body size, and ethnicity. African American women were expected rate dressed, heavier African American models as most attractive. Caucasian women were expected to rate thinner, undressed Caucasian models as most attractive. However, Caucasians, as well as African Americans, found the dressed models to be more attractive than the undressed models. Both groups rated the thinner silhouettes and the African American models as most attractive. These findings challenge earlier research supporting differences in components of attractiveness and the rejection of the ultra-thin body ideal among African American women (Mossavar-Rahmani et. al., 1996; Rucker & Cash, 1991). Interestingly, these above findings held even after accounting for ethnic identity, SES, and participant BMI.

Did the Model Rating Task Represent a Multifactorial View of Attractiveness?

The predicted ethnic differences in attractiveness ratings were not found. Earlier work has provided evidence that a multifactorial view of attractiveness is held by African American women that consists of various factors such as attire, facial features, skin complexion, waist-to-hip ratio (WHR), and overall appearance (Harris, 1995; Parker, 1995). Attire and ethnicity, although identified as particularly salient components for

African American women (Parker, 1995), are not the only relevant factors in the determination of attractiveness. It is possible that dressing and shading the models, although the first steps in examining additional components of attractiveness beyond body size, were not enough to dismantle the ethnic differences in attractiveness that may exist. It may be the combination of several factors (e.g., attire, facial features, WHR, skin complexion) that prove to capture the distinctions of beauty ideals across ethnic groups. In isolation, the dressed and model ethnicity conditions may have been insufficient in capturing a multifactorial conceptualization of attractiveness. As a result, the models used in the current study may have been "too generic" to flush out ethnic differences. As one participant stated, "How am I suppose to rate attractiveness without facial features?" Additionally, dressing and shading the models may not be the components of attractiveness that produce clear ethnic differences in perceptions of attractiveness even if other attractiveness components (e.g., facial features, skin complexion, and hairstyle) were considered.

Interestingly, Caucasian women preferred African American models and rated them more attractive than Caucasian models. One explanation for these findings is the coloration of the Caucasian models when projected on the white screen during the Model Rating Task (MRT). One participant commented after the rating task, "Goodness, these white models looked so chalky white, they needed a tan". It is possible that the African American models, which looked more "tanned," were more visually pleasing to Caucasian women.

In addition, the range of the model weights may have been insufficient in teasing apart differences in attractiveness as it related to body size. It is possible that extending

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the MRT to include models with a BMI less than $17kg/m^2$ (i.e., the current UW BMI category) would have better captured differences in body size preferences between African American and Caucasian women. The UW model may have still fallen in the acceptable attractiveness range for the African American participants.

A shortcoming of the MRT was its inability to capture the full multi-factorial view of attractiveness traditionally held within the African American community. The MRT was deficient in examining other components of the attractiveness such as facial features, skin complexion and other body types. In addition, the MRT did not assess the relative importance of other factors in the determination of attractiveness among African American subgroups. For example, several African American participants made comments such as, "These models are too proportionate, what happened to the rolls and cellulite?" In the attempt to increase the internal validity of this study by the standardization of dress attire, facial features, and model body proportions, the generalizability may have been compromised. To this end, future studies should extend the current Model Rating Task in the following ways:

1) The MRT should be expanded to include other forms of attire such as business, causal, and evening clothing to determine whether type of attire differentially impacts attractiveness ratings by ethnicity;

2) Facial features such as eyes, nose, lips, etc. should be added to the models in order to more closely resemble human characteristics. The addition of such features may increase participants' ability to identify with the female model stimuli, resulting in a more critical evaluation of attractiveness by African American and Caucasian women;

3) Models of varying body proportions and fatness should be included in future studies. Including models with "rolls and cellulite" and extremely thin models may more closely represent the human body and lead to the increased identification needed to tap into the "real-world" evaluation of attractiveness;

4) Lastly, the current MRT should be extended to include models of various skin complexions. The current task only included one Caucasian model and one African American model. Varying the skin complexion of the model to reflect very pale to very dark stimuli would allow for the examination of the effects of skin tone on attractiveness.

The proposed modifications to the MRT may extend its external validity.   Identification of the most salient components of attractiveness by ethnicity, and systematic examination of the impact of additional factors on attractiveness among African American and Caucasian women would be examined.

It is expected that differences in attractiveness by ethnicity would become more distinct as more factors are added to the model stimuli. African American women would rate models with more "real" features as more attractive than Caucasian women, tapping into a more traditional view of African American beauty. What is less clear is the view of Caucasian beauty as defined by Caucasian women. Data from this study suggest that Caucasian may also adopt a multifactorial view of attractiveness. No studies have delineated the definition of attractiveness for Caucasian women using an approach similar to the MRT. Future studies should continue to identity the salient components of attractiveness for Caucasian women in order to determine whether the current findings replicate.

Does SES and Ethnic Identity Really Matter?

In the present study, there was no empirical support for a differential impact of SES and ethnic identity on attractiveness, as posited in Hypothesis 4. Several issues must be examined to clarify these relationships. The following provides a discussion of the potential influence of SES, exposure to other ethnicities, and ethnic identity and culture on attractiveness and body dissatisfaction.

Perhaps the most important shortcoming of this study was the lack of variability in SES among study participants and the restricted range of SES among African American women. A convenience sample, obtained from local newspaper and flyer advertisements, was used in the present study. As a result, the sample studied in the current investigation was relatively homogenous with regards to socioeconomic (SES) factors. Nearly 40% of participants had an annual household income of <70K and more than 15 years of education. In addition, 64% of the women lived in Montgomery County (median annual income= 71K; U.S. Census data, 2000). Only 16% of women studied were from Prince Georges County (median annual income= 57K, U.S. Census data, 2000), a county with a significantly greater percentage of African Americans compared to Montgomery county (82 % vs. 34%, respectively, U.S. Census data, 2000). In addition, there was a restricted range in SES among African American women such that those of higher SES were disproportionately overrepresented. Seventy percent of the African American participants had an annual income of greater than 50K.

To this end, the current study was not able to determine the differences on attractiveness between lower and higher SES groups as initially proposed. It is possible that greater variability in SES may have yielded different results. Related to this,

definitions of attractiveness may be very different depending on the degree of exposure to certain cultures, which is typically contingent upon SES status. African American women of lower SES may be more likely to sustain traditional views of beauty and attractiveness, given decreased exposure to Caucasian culture. The current data suggest that African American women, despite having a significantly lower income than Caucasian women, had similar definitions of attractiveness compared to Caucasian women. However, caution should be taken in the interpretation of this finding given African American women were of relatively high SES.

Additionally, this study was unable to examine the impact of SES on attractiveness for Caucasian women. Caucasian women of lower SES may have divergent views of attractiveness compared to their higher SES Caucasian counterparts or African American women. It is expected that Caucasian women of lower SES may still retain the traditional views of Caucasian culture regarding attractiveness and body dissatisfaction. This is based on earlier work that found SES did not differentially impact body image for Caucasian women (Harris, 1995).

Future investigations should include a more representative sample, comprised of women of various SES to better determine the impact of SES on attractiveness by ethnicity. Areas of decreased ethnic diversity (e.g., rural, lower SES urban) may result in more traditional views of attractiveness held by those African American subgroups, and reflect more typical ethnic differences on attractiveness between Caucasian and African American women. Specifically, it is predicted that African American of lower SES would rate heavier, dressed models more attractive than thinner, undressed models compared to higher SES African American women as measured by the MRT. In

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addition, African American women of lower SES would select a larger ideal body size and be less dissatisfied with their bodies compared to higher SES African American counterparts using the FRS. Such findings would support earlier work examining the effects of SES on body image for African American women (Harris, 1995).

Does Exposure to Other Ethnicities Impact Attractiveness?

Exposure to Other Ethnic Groups. Attractiveness data from the MRT may support speculation that the degree of exposure to other ethnic groups moderates definitions of attractiveness and body ideals. If future work replicates the findings of the present study, it may be beneficial to examine the implications of potential changes in body ideals and attractiveness among African American women. Specifically, the finding that African American women rated the thinner, underweight models as most attractive. Geographical factors such as residential and work location may play a critical role in the access and degree of exposure to women of divergent views of weight, body image, and beauty. Such factors may facilitate in the shifting of traditional definitions of attractiveness among certain African American female subgroups.

As African American women engage with Caucasian women at a higher frequency, their definitions of attractiveness may begin reflect increased exposure to the views of beauty traditionally held by Caucasian women. Given nearly 60% of the African American women in the study lived in Montgomery County and a majority of the African American participants worked in the DC metro area, it is likely that exposure to Caucasian culture may have played a role. It is possible that definitions of beauty and body preferences may be significantly influenced by the degree to which the African American woman identifies with traditional African American beliefs, values, and ideas,

or chooses to adopt ideals similar to Caucasian culture. As African American ideals and preferences regarding attractiveness begin to migrate toward mainstream Caucasian culture, traditional definitions of attractiveness (e.g., larger ideal body size, less body dissatisfaction, multi-factorial view of beauty) may no longer hold. Evidence suggesting greater acceptance of the thin body ideal by higher SES African American women was apparent in the present study, with this subgroup choosing the thinner models as most attractive. As a result, for certain African American female subgroups, relative thinness of the body may be a bigger constituent of attractiveness than initially expected.

Most often the research literature focuses on the unidirectional influence of the majority culture on a particular minority group; however, the potential impact of African American culture on Caucasian culture should not be overlooked. In the Washington DC metro area, and in the District of Columbia where more than 70% of the population is African American (Census, 2000), Caucasians may have increased opportunities to interface with African American women. African American women and their ideals of attractiveness may indeed influence the views of Caucasian women such that Caucasian women may begin to possess a more multi-factorial view of beauty as evidenced in the current study. Similar to African American women, Caucasian women rated dressed models as most attractive. This phenomenon may partly explain the lack of differential findings among African American and Caucasian women regarding attractiveness as it related to dress attire.

Follow-up studies should involve the addition of a measure of acculturation among African American women such as the African American Acculturation Scale (Landrine & Klonoff, 2000). Studies should also include a questionnaire to examine the

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impact of African American culture on Caucasian women. In addition, studies using the MRT in different geographical locations should be employed. This would allow for the examination of the bi-directional impact of acculturation and exposure to other ethnic groups on attractiveness for both African American and Caucasian women. Attractiveness as it related to degree of ethnic diversity in various geographical areas (e.g., rural and lower SES urban) could be examined.

Similar to the present study, it is expected that highly acculturated African American women would rate thinner models as most attractive. Additionally, Caucasian women exposed to African American culture at a greater frequency would rate heavier, dressed models as most attractive on the MRT. FRS data would be expected to show that highly acculturated African American women would have a thinner ideal body size and more body dissatisfaction compared to less acculturated African American women. Caucasian women, of increased exposure to African American culture, would be expected to have a larger ideal body size and be less dissatisfied with their bodies.

Is African American Ethnic Identity and Culture Changing: How is Attractiveness Affected?

Ethnic Identity and Culture. It is possible that the apparent changes in definitions of attractiveness and body dissatisfaction in this study may be the result of the continual evolution of African American ethnic identity and culture. Regardless of ethnicity, there are shifts in culture and key experiences that define different generational cohorts For African Americans of this generation, ethnic identity and African American culture mean something very different than in previous generations as norms and values begin to shift. As a result, some of the views historically representing African American culture may no

longer exemplify what African American culture represents today. As a result, the initial

beliefs surrounding the African American culture and its norms regarding attractiveness,

body ideals, and body dissatisfaction may not be as clear-cut.

The general adoption of larger body ideals and decreased body dissatisfaction

may be less of a reality for African American women compared to past generations.

Specifically, being of African American descent and ascribing to African American

traditions may no longer protect one against the process of adopting body ideals

traditionally seen among Caucasian culture. Based on this premise, the finding that

African American women, who were higher in ethnic identity than Caucasian women,

still rated underweight models as most attractive, may not be as discordant as initially

believed.

Development of a Culturally Sensitive Attractiveness Assessment Task

Previous body image research has been constrained by Caucasian beauty ideals,

which define female beauty in terms of thinness. Existing body image measures focus on

this thin ideal. In addition, despite the silhouette method being the cornerstone of body

image assessment, the assessment of attractiveness has been limited to self-report.

The present study employed a new Model Rating Task (MRT) derived from the

widely-used Tassinary silhouettes (Tassinary & Hansen, 1998). The MRT was designed

to provide a more culturally sensitive assessment of attractiveness for African American

women. The Tassinary silhouettes were modified in three key ways to include shaded

silhouettes, a wider range of body sizes, and clothing. First, models were shaded to

include African American and Caucasian silhouette stimuli. This allowed for the

examination of the impact of ethnicity of definitions of attractiveness for Caucasian and

African American women. No other studies have included African American figural stimuli in their examination of attractiveness among African American populations. Second, the number of silhouettes was expanded to include models of higher BMI categories (i.e., overweight, class 1 obese, class 2 obese). With the increased prevalence of overweight and obesity among African American women, traditional silhouettes body size ranges may not provide a realistic range for assessment. Third, one set of models were dressed, allowing for the examination of the affect of attire on attractiveness ratings. The key issue in attempting to understand study findings lies in the examination of the current Model Rating Task.

<u>Secondary Analyses: Did the Model Rating Task Measure Attractiveness?</u>

It is possible that the MRT attractiveness ratings were ineffective in measuring attractiveness. In addition, the use of the MRT to systematically examine the components of attractiveness (i.e., attire, body size, and ethnicity) may have been insufficient in teasing apart differences in definitions of attractiveness between African American and Caucasian women. However, study findings suggest the MRT provided a systematic assessment of attractiveness. The MRT did yield a consistent pattern of results such that both African American and Caucasian women rated thinner, dressed African American models as most attractive. This suggests that the MRT was successful in examining the impact of the various components of attractiveness (i.e., attire, body size, and model ethnicity) manipulated in this study for African American and Caucasian women. The potential utility of the MRT lies in its attempt to examine attractiveness using a culturally sensitive approach and in the inclusion of other components of attractiveness identified among certain ethnic minorities.

<u>What Did the Model Rating Task Measure?</u>

Secondary analyses yielded an interesting pattern of correlations between the MRT and the measures of body image and eating pathology. As expected, the MRT was inversely correlated with measures of eating pathology, including the EDI drive for thinness (DT), and the MBSRQ overweight preoccupation (OP) and ASI (AS) subscales. Additionally, the Figure Rating Scale (FRS) was correlated with both body dissatisfaction and eating pathology self-report measures. Unexpectedly, the MRT was not correlated with either the self-report measures of body dissatisfaction or the Figure Rating Scale (FRS). It was hypothesized that there would be a significant negative association between the FRS and the MRT such that as FRS scores increased (i.e., more body dissatisfaction), attractiveness scores would decrease. However, this pattern was not found. This is particularly puzzling, given the FRS employs the most similar assessment methodology to examine body image (i.e., the use of figural stimuli of varying weight status) relative to the MRT. This pattern has several implications for the MRT as a measure of attractiveness and for the findings of this study.

<u>Attractiveness Evaluation of Self versus Attractiveness Evaluation of Other</u>

It is possible that the Model Rating Task measured another distinct aspect of attractiveness traditionally not assessed in the body image literature. The body image research is typically limited to *self* evaluation of body size preferences and body dissatisfaction. Generally, assessment measures do not assess a broader definition of attractiveness that may include the evaluation of attractiveness of *others*. The figural assessments of body image such as the FRS focus entirely on body size and *self* body dissatisfaction evaluation. Specifically, the FRS measures an individual's evaluation of

his or her own body image and the degree to which they are satisfied with their own appearance. This is accomplished by asking participants to select their perceived current body size and ideal body size from 9 silhouette figures. The goal of the FRS is to determine degree of body dissatisfaction, not to assess general attractiveness.

Conversely, for the Model Rating Task, participants were asked to evaluate the attractiveness of a model without referring to this as a self or ideal rating. As part of this task, participants were asked to provide attractiveness ratings for several model stimuli. The goal of the Model Rating Task was to manipulate key components of attractiveness and to examine the effect of these factors on attractiveness ratings for African American and Caucasian women. Such efforts were an attempt to extend the traditional body image measures that typically fail to capture other components of attractiveness found to be salient for African American women (Parker, 1995). Thus, in retrospect, the task demands were very different between the FRS and MRT. Such differences in methodologies may have assessed different aspects of attractiveness (self vs. other), and provided different information. This may, in part, explain the lack of association between these two measures in the current study.

The findings of the current investigation should be considered in lieu of these differences in methodologies. Another limitation in the present design was the absence of counterbalancing presentation of the silhouettes. In efforts to remain consistent with the figural assessment methodologies typically used in the body image literature, the decision was made to have participants rate models in order of increasing BMI. However, one potential confound of the observed results is that UW models were rated as more attractive than OW and OB models, given the order of model presentation. Future

studies should randomize study participants to various model order conditions to determine whether the present study findings replicate.

Another methodologic shortcoming of the present study was the differences in the dependent variables examined using the MRT and FRS. The MRT was limited in its assessment of attractiveness as the dependent variable. The MRT assessed the attractiveness of *others*, neglecting to examine *self* evaluation of attractiveness. In other words, the MRT did not measure body dissatisfaction. In addition, the MRT was constrained by only examining three independent variables or components of attractiveness (i.e., attire, body size, and model ethnicity). To address these weaknesses, future studies should employ the MRT to examine both attractiveness and body dissatisfaction using a methodology similar to the FRS. Models could be presented simultaneously and participants would be asked to select their current perceived and ideal body sizes in order to examine degree of body dissatisfaction. Additionally, when viewing all 20 models at once, women would rate each of the undressed or dressed African American and Caucasian models on degree of attractiveness. Using a similar methodology would allow for the determination of whether: 1) body dissatisfaction ratings from the MRT are correlated with body dissatisfaction scores from the FRS; 2) differences exist in self vs. other attractiveness evaluation; and 3) the Model Rating Task was indeed tapping into the "other" domain of attractiveness evaluation.

Given data from the FRS suggested African American women had a significantly larger perceived current body size and ideal body size relative to Caucasian women, it is expected that the findings from the revised MRT would reflect traditional differences found on body image for African American and Caucasian women. In general, African

American women would select a larger current body size, larger ideal body, and have less body dissatisfaction compared to Caucasian women. In addition, it is predicted that self vs. other attractiveness evaluation would yield divergent results. Self evaluation of attractiveness would differ by ethnicity. African American women would be expected to rate themselves as more attractiveness than Caucasian women. However, *other* attractiveness evaluation would be expected to be similar for African American and Caucasian, as evidenced in the current study.

Attractiveness and Body Dissatisfaction: Two Different Constructs

Earlier body image literature erroneously uses the terms attractiveness and body dissatisfaction interchangeably (Streigel-Moore, 1992; Thompson, 1991). However, more recent research has attempted to operationalize these two terms to represent two distinct constructs (Joiner & Perez, 2003; Kemper et al., 1999; Parker, 1995). The construct of attractiveness involves a broader, more global evaluation of beauty, comprising of multiple components (e.g., attire, body, and overall appearance). Conversely, body dissatisfaction is the evaluation of one's perceived current body relative to a personal body ideal. Body dissatisfaction tends to be more specific, focusing entirely on the body as the proxy for body esteem.

In addition, silhouette body image assessments tend to use body dissatisfaction as the main index to examine attractiveness across ethnic groups. It is possible that an inherent cultural bias exists in this traditional assessment of attractiveness. The examination of attractiveness that relies entirely on the examination of body dissatisfaction may not adequately capture attractiveness as defined by African American women. As a result, caution should be given to research that uses body dissatisfaction as

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the sole proxy for the comparison of attractiveness between African American and Caucasian women. Future studies should incorporate less culturally biased self-report measures of attractiveness, such as the Body Image Questionnaire (Cash et al., 1992), to examine attractiveness among African American and Caucasian women. This method may be more sensitive in teasing apart differences in attractiveness and body dissatisfaction by ethnicity.

Other attractiveness research has shown that for certain African American subgroups body dissatisfaction may not represent pathology (Kumanyika, 1992; Mossavar-Rahmani et al., 1996). The perceptual component of body dissatisfaction, which entails the evaluation of one's body relative to an ideal, may be similar for African American and Caucasian women as evidenced in the current study. However, the emotional reaction in response to this body dissatisfaction may be quite different for African American and Caucasian women. The negative emotions traditionally found among Caucasian women related to increased weight and body dissatisfaction may not hold for certain African American women. More specifically, differences in the emotional reaction to increased weight may yield differences in self-esteem among African American and Caucasian women.

In this study, despite African American women being on average obese and significantly heavier than Caucasian women, they reported comparable level of body dissatisfaction and higher self-esteem relative to their Caucasian counterparts. Cultural references for weight and the meaning of overweight may play a role in the lack body dissatisfaction found among heavier African American women. It is possible that cultural-moderated views of attractiveness, not limited to body dissatisfaction, may serve

as a protective factor against weight-related negative affect.   Follow-up studies should examine the impact of attractiveness and body dissatisfaction on self-esteem and body esteem to determine whether the current findings hold using the MRT, a more culturally-sensitive assessment approach.

FUTURE STUDIES

In summary, the present study had four major limitations: the MRT did not assess a full multi-factorial view of attractiveness; the sample's socioeconomic stratification; differences in task demands of the MRT compared to more traditional measures of body image, such as the FRS; and differences in the assessment of attractiveness vs. body dissatisfaction by the MRT and FRS, respectively. Perhaps most importantly, follow-up studies should further delineate and operationalize the definitions and components of attractiveness for African American and Caucasian women. Currently, no other studies have attempted to study attractiveness and body dissatisfaction across ethnicity using a culturally sensitive figural assessment approach (i.e., Model Rating Task). Extending the current MRT by examining factors such as facial features, skin complexion, and lower BMI silhouettes would be important. This may provide a more thorough and culturally appropriate examination of the components of attractiveness for African American and Caucasian women. These components have been overlooked in the body image literature, which has over relied on assessment of components of body weight, particularly the thin ideal.

In addition, the impact of SES on attractiveness and body dissatisfaction should be further studied. Future studies should examine attractiveness and body dissatisfaction using the MRT with African American and Caucasian women of high and low

socioeconomic status. A better understanding of the relationship of culture and body image and attractiveness definitions is needed. Further study required the examination of multiple other factors including work and residential locations, exposure to other cultures, and ethnic identity for both African American and Caucasian women.

Future studies are needed to determine whether the MRT is a valid measure of attractiveness. Specifically, investigations should examine the MRT's ability to assess the other versus self domain of attractiveness for African American and Caucasian women. In addition, it will be important to determine whether the MRT (i.e., a measure of attractiveness) and the FRS (i.e., a measure of body dissatisfaction) are related in other African American and Caucasian female subgroups. The determination of what construct the MRT assesses will prove beneficial in expanding our conceptualization of attractiveness and body dissatisfaction across different ethnic groups.

More globally, a more thorough understanding of the definitions attractiveness and beauty across ethnic groups may have clinical implications. Such information may prove beneficial in facilitating the cultural proficiency of health care providers, public health professionals, and researchers as it relates to approaches to address obesity and overweight. All too often, advice to lose weight is given with the belief that all individuals value being thin. Future work is needed to dismantle the inherent cultural biases that exist in the identification and treatment of obesity for ethnic minorities. Such biases often neglect the differences in definitions of attractiveness and body image dissatisfaction across ethnic groups.

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Table 1

Demographic Information and Anthropomorphic Data by Ethnicity and Attire (N=160)

	Age (yrs)	Education (yrs)	BMI (kg/m^2)
	Mean(SD)	Mean(SD)	Mean(SD)
African American (n=80)			
Undressed (n=40)	42.12(12.43)	15.48(2.54)	30.54(6.25)
Dressed (n=40)	44.55(10.07)	14.88(2.28)	32.73(7.32)
Overall	43.34(11.08)[a]	15.18(2.42)	31.63(6.86)[ab]
Caucasian (n=80)			
Undressed (n=40)	39.32(11.57)	16.00(2.80)	25.16(4.84)
Dressed (n=40)	39.60(10.037)	15.38(2.35)	24.77(4.81)
Overall	39.46(10.92)[a]	15.69(2.58)	24.97(4.80)[ab]

Note. [a] = p<.05; [ab] = p<.01.

Table 2

Marital Status, Employment Status, Annual Household Income, and County of Residence by Ethnicity (N=160)

	Overall (N=160)	African American (n=80)	Caucasian (n=80)	
	Freq(%)	Freq(%)	Freq(%)	χ^2
Marital Status				$\chi^2(5)= 13.17*$
Single	55(34.4)	29(52.7)	26(47.3)	
Married	71(44.4)	28(39.4)	43(60.6)	
Divorced	25(15.6)	18(72.0)	7(28.0)	
Separated	4(2.5)	2(50.0)	2(50.0)	
Widowed	3(1.9)	3(100.0)	0(0.0)	
Living Together	2(1.3)	0(0.0)	2(100.0)	
Employment Status				$\chi^2(4)= 24.12**$
Full-time	112(70.0)	63(56.3)	49(43.7)	
Part-time	20(12.5)	2(10.0)	18(80.0)	
Homemaker	15(9.4)	4(26.7)	11(73.3)	
Retired	8(5.0)	7(87.5)	1(12.5)	
Unemployed	5(3.1)	4(80.0)	1(20.0)	
Annual Income				$\chi^2(6)=41.71**$
<20K	10(6.3)	4(40.0)	6(60.0)	
20-30K	12(7.5)	7(58.3)	5(41.7)	
30-40K	21(13.1)	15(71.4)	6(28.6)	
40-50K	20(12.5)	20(100.0)	0(0.0)	
50-60K	20(12.5)	10(50)	10(50)	
60-70K	15(9.4)	9(60.0)	6(40.0)	
>70K	62(38.8)	15(24.2)	47(75.8)	
County Of Residence				$\chi^2(4)=18.73**$
Montgomery	103(64.4)	43(41.7)	60(58.3)	
Prince George's	16(10.0)	14(87.5)	2(12.5)	
District	25(15.6)	15(68.0)	8(32.0)	
VA	7(4.4)	1(14.3)	6(85.7)	
Other	9(5.6)	5(55.6)	4(44.4)	

Note. * p<.05. ** p<.01.

Table 3

Marital Status, Employment Status, Annual Household Income, and County of Residence by Attire (N=160)

	Overall (N=160)	Undressed (n=80)	Dressed (n=80)	
	Freq(%)	Freq(%)	Freq(%)	χ^2
Marital Status				$\chi^2(5)=14.64$**
Single	55(34.4)	36(65.5)	19(34.5)	
Married	71(44.4)	29(40.8)	42(59.2)	
Divorced	25(15.6)	10(40.0)	15(60.0)	
Separated	4(2.5)	3(75.0)	1(25.0)	
Widowed	3(1.9)	0(0.0)	3(100.0)	
Living Together	2(1.3)	2(100.0)	0 (0.0)	
Employment Status				$\chi^2(4)= 4.11$
Full-time	112(70.0)	58(51.8)	54(48.2)	
Part-time	20(12.5)	10(50.0)	10(50.0)	
Homemaker	15(9.4)	5(33.3)	10(66.7)	
Retired	8(5.0)	3(37.5)	5(62.5)	
Unemployed	5(3.1)	4(80.0)	1(20.0)	
Annual Income				$\chi^2(6)=12.21$*
<20K	10(6.3)	6(60.0)	4(40.0)	
20-30K	12(7.5)	8(66.7)	4(33.3)	
30-40K	21(13.1)	10(47.6)	11(52.4)	
40-50K	20(12.5)	12(60.0)	8(40.0)	
50-60K	20(12.5)	14(70.0)	6(30.0)	
60-70K	15(9.4)	3(20.0)	12(80.0)	
>70K	62(38.8)	27(43.5)	35(56.5)	
County Of Residence				$\chi^2(4)=4.42$
Montgomery	103(64.4)	48(46.6)	55(53.4)	
Prince George's	16(10.0)	7(43.8)	9(56.2)	
District	25(15.6)	13(52.0)	12(48.0)	
VA	7(4.4)	6(85.7)	1(14.3)	
Other	9(5.6)	5(55.6)	4(44.4)	

Note. * trend p=.057. ** p<.05.

Table 4

Mean BDI-II, RSE, EDI and MEIM Scores by Ethnicity and Attire (N=160)

	BDI	RSE	DT	BL	BD	MEIM
African American (n=80)						
Undressed (n=40)	5.10(4.11)	35.40(4.12)	3.20(.25)	1.03(.69)	8.95(.76)	2.98(.26)
Dressed (n=40)	4.60(3.48)	35.98(3.45)	3.98(.56)	.20(.56)	9.35(.60)	3.01(.25)
Overall	4.85(3.92)	35.69(3.79)[a]	3.59(.40)	.61(.98)	9.65(.20)	3.00(.26)[ab]
Caucasian (n=80)						
Undressed (n=40)	5.50(4.04)	32.50(4.44)	5.45(.32)	.88(.51)	9.55(.72)	2.66(.40)
Dressed (n=40)	4.00(4.06)	33.45(4.24)	3.48(.46)	.45(.01)	8.68(.96)	2.61(.33)
Overall	4.75(4.10)	32.90(4.35)[a]	4.46(.53)	.66(.30)	9.11(.33)	2.63(.36)[ab]

Note. Data are presented as mean (standard deviation). BDI-II= Beck Depression Inventory-II, RSE= Rosenberg Self Esteem Scale; DT= Eating Disorders Inventory Drive for Thinness subscale; BL= Eating Disorders Inventory Bulimia subscale; BD= Eating Disorders Inventory Body Dissatisfaction subscale; MEIM= Multi-Group Ethnic Identity Measure. [a] = p<.05; [ab] = p<.01.

Table 5

Multivariate Analysis of Variance Model for Attractiveness Scores (N= 158)

	df	MS	F	p
Model Weight	4	1956.29	198.46	.00**
Model Wgt x Rater Race	4	22.76	3.65	.01**
Wgt x Attire	4	14.22	1.58	.18
Error (Weight)	616	4.65		
Model Ethnicity	1	84.14	45.71	.00**
Model Ethn x Rater Race	1	6.84	3.72	.056
Model Ethn x Attire	1	1.34	.73	.39
Model Ethn x Rater Race x Attire	1	.004	.002	.96
Error (Model Ethn)	154	1.84		
Wgt x Model Ethn	4	1.44	1.46	.22
Wgt x Model Ethn x Rater Race	4	2.41	2.85	.03*
Wgt x Model Ethn x Attire	4	.51	1.82	.13
Wgt x Model Ethn x Race x Attire	4	1.14	1.21	.31
Error (Wgt x Model Ethn)	616	.60		
Between-subjects factors				
Rater Race	1	5.15	.52	.47
Attire	1	103.39	10.42	.00**
Rater Race x Attire	1	14.76	1.49	.23
Error	154	9.92		

Note. All Wilks' Lambda F statistics reported. Wgt= Weight; Ethn= Ethnicity. p<.05. **
p<.01.

Table 6

Mean Attractiveness Scores Across Model BMI Status and Model Ethnicity by Attire
(N=158)

Model BMI/Ethnicity	Attire		
	Undressed	Dressed	Significance
	(n=80)	(n=78)	
	Mean(SD)	Mean(SD)	F(p)
Underweight			
AA	6.15(.89)	6.42(.88)	3.63(.06)
CC	5.81(1.12)	6.20(1.01)	4.96(.03)
Normal weight			
AA	5.26(1.27)	5.66(1.14)	3.43(.07)
CC	4.91(1.32)	5.38(1.20)	4.76(.03)
Overweight			
AA	4.27(1.34)	4.83(1.27)	6.10(.02)
CC	4.05(1.34)	4.64(1.33)	6.23(.01)*
Class 1 Obese			
AA	3.56(1.48)	4.23(1.42)	7.49(.007)*
CC	3.31(1.46)	4.14(1.42)	11.47(.001)**
Class 2 Obese			
AA	2.65(1.43)	3.51(1.50)	11.91(.001)**
CC	2.29(1.33)	3.32(1.58)	10.84(.001)**

Note. * trend $p \leq .01$, ** $p < .005$.

Table 7

Mean Attractiveness Scores Across Model BMI Status and Model Ethnicity by
Participant Ethnicity (N=158)

	Participant Ethnicity		
	African American	Caucasian	Significance
	(n=78)	(n=80)	
Model BMI/Ethnicity	Mean(SD)	Mean(SD)	F(p)
Underweight			
AA	6.12(1.04)	6.40(.70)	1.26(.26)
CC	5.81(1.16)	6.20(.96)	2.73(.10)
Normal weight			
AA	5.71(1.15)	5.22(1.24)	1.21(.27)
CC	5.20(1.21)	5.10(1.36)	.13(.72)
Overweight			
AA	4.79(1.32)	4.33(1.31)	1.72(.19)
CC	4.51(1.36)	4.18(1.36)	.21(.65)
Class 1 Obese			
AA	4.04(1.56)	3.76(1.41)	1.49(.22)
CC	3.88(1.51)	3.58(1.46)	.27(.60)
Class 2 Obese			
AA	3.22(1.55)	2.94(1.50)	.78(.38)
CC	3.07(1.57)	2.76(1.45)	.81(.37)

Note. * trend p≤ .01, ** p<.005.

Table 8

Summary Table of Significance Values for Attractiveness Scores by Participant Ethnicity and Attire (N=158)

	Ethnicity	Attire	Ethnicity x Attire
Model BMI (kg/m^2)			
UW			
F(p)	1.82(.18)	3.79(.05)*	.22(.64)
Power	.269	.490	.075
Eta^2	.012	.024	.001
NW			
F(p)	.15(.70)	4.22(.04)*	1.38(.24)
Power	.067	.535	.214
Eta^2	.006	.027	.009
OW			
F(p)	.98(.32)	6.40(.01)*	.58(.45)
Power	.166	.710	.118
Eta^2	.006	.040	.004
OB1			
F(p)	1.05 (.31)	10.78(.001)	1.01(.32)
Power	.175	.904	.170
Eta^2	.007	.066	.007
OB2			
F(p)	1.21(.27)	12.66(.000)	.20(.65)
Power	.194	.942	.073
Eta^2	.008	.077	.001
Overall			
F(p)	.89(.49)	3.08(.008)**	.82(.54)
Power	.311	.862	.290
Eta^2	.029	.094	.027

Note. UW= Underweight, NW= Normal Weight, OW= Overweight, OB1= Class I Obese, OB2= Class 2 Obese. * trend p≤ .05, ** p<.01.

Table 9

Frequency Data for Participant BMI status for African American and Caucasian
Participants (N=158)

	Participant BMI Status (kg/m^2)					
	17	22	26	31	36	Above 36
	(n=2)	(n=58)	(n=48)	(n=23)	(n=14)	(n=13)
Participant Ethnicity						
African American (n=78)	0 (0.0)	11(19.0)	30(62.5)	15(65.2)	13(92.9)	13(100.0)
Caucasian (n= 80)	2 (1.3)	47(81.0)	18(37.5)	8(34.8)	1 (7.7)	0(0.0)

Note. Data are present as frequency (percentages).

Table 10

Attractiveness Scores Across Model BMI Status by Participant BMI Status (N=158)

	Model BMI (kg/m^2)				
	UW	NW	OW	OB1	OB2
	17	22	26	31	36
African American (n=78)					
Participant BMI (kg/m^2)					
Under/Normal (n=11)	6.40(.82)	5.36(.84)	4.34(.94)	3.66(1.23)	3.02(1.39)
Elevated (n=67)	5.92(1.04)	5.47(1.13)	4.70(1.34)	4.01(1.52)	3.16(1.56)
Caucasian (n=80)					
Under/Normal (n=49)	6.22(.72)	4.94(1.25)	4.11(1.25)	4.48(1.30)	2.77(1.45)
Elevated (n=31)	6.43(.89)	5.49(1.25)	4.48(1.30)	3.81(1.36)	2.97(1.50)

Note. Underweight/Normal weight = 17.00-24.99 kg/m^2; Elevated= 25.00-51.00 kg/m^2.

Table 11

Summary of Regression Analysis for Variables Predicting Overall Attractiveness (N=158)

Participant Variable	*B*	SE *B*	β	t(p)
1. Ethnicity	.37	.24	.18	1.54(.13)
2. Attire	.67	.22	.33	3.00(.00)*
3. Ethn x Attire	-.36	.32	-.15	-1.12(.27)
4. Education	-.04	.03	-.10	-1.18(.24)
6. Ethnic Identity	-.26	.27	-.09	-.96(.34)

Note. R^2= .094. F(5,152)= 3.15; *p= < .01; Ethn= Ethnicity.

Table 12

Mean Health Scores Across Model BMI Status by Participant Ethnicity (N=158)

Model BMI	African American (n=78) Mean(SD)	Caucasian (n=80) Mean(SD)
Underweight	6.27(1.00)	6.67(.70)
Normal weight	5.54(1.11)	5.44(1.23)
Overweight	4.59(1.21)	4.45(1.36)
Class 1 Obese	3.81(1.31)	3.77(1.40)
Class 2 Obese	2.85(1.24)	2.74(1.27)

Note. Data presented as mean (standard deviation).

Table 13

Correlations for Attractiveness Model Rating Task Collapsed Across Participant Ethnicity (N=158)

	ATT	UW	NW	OB	DT	BD	AE	OP	AS	FRS	BDI	BMI
ATT	1.00	.47**	.85**	.90**	-.35**	-.13	.10	-.26**	-.22**	.05	-.19*	.16*
UW		1.00	.47**	.22**	-.08	-.13	.04	-.15	.04	.12	-.17	.12
NW			1.00	.63**	-.35**	-.09	.06	-.27**	-.18*	-.03	-.23**	.23**
OB				1.00	-.31**	-.11	.09	-.22**	-.23**	.06	-.13	.13
DT					1.00	.48**	-.41**	.66**	.55**	.34**	.29**	.02
BD						1.00	-.70**	.57**	.44**	.64**	.30**	.47**
AE							1.00	-.41**	-.37**	-.56**	-.26**	-.43**
OP								1.00	.59**	.37**	.31**	.20**
AS									1.00	.18*	.56**	-.02
FRS										1.00	-.26**	-.56**
BDI											1.00	.09
BMI												1.00

Note. ATT= Mean attractiveness score collapsed across model BMI; UW- Underweight model attractiveness scores; NW- Normal weight model attractiveness scores; OB- Obese model attractiveness scores; DT= Drive for thinness subscale; BD= Body Dissatisfaction subscale; MBSRQ- AE= Multidimensional Body Self Relations Questionnaire appearance-evaluation subscale; MBSRQ- OP= Multidimensional Body Self Relations Questionnaire overweight preoccupation subscale; AS= Appearance Schemas Inventory self-evaluation subscale; FRS= Figure Rating Scale; BDI- Beck Depression Inventory; BMI= Body Mass Index. **p<.01. p * <.05.

Table 14

Correlations for Attractiveness Model Rating Task for African American Participants (n=78)

	ATT	UW	NW	OB	DT	BD	AE	OP	AS	FRS	BDI	BMI
ATT	1.00	.49**	.81**	.88**	-.28*	-.09	.07	-.20	-.22	.00	-.19	.21
UW		1.00	.53**	.24*	-.10	-.20	.13	-.21	-.11	.15	-.22	-.08
NW			1.00	.52**	-.22	-.10	.06	-.15	-.04	.00	-.29**	.24*
OB				1.00	-.23*	-.02	.15	-.16	-.27**	-.04	-.10	.19

Note. ATT= Mean attractiveness score collapsed across model BMI; UW- Underweight model attractiveness scores; NW- Normal weight model attractiveness scores; OB- Obese model attractiveness scores; DT= Drive for thinness subscale; BD= Body Dissatisfaction subscale; MBSRQ- AE= Multidimensional Body Self Relations Questionnaire appearance-evaluation subscale; MBSRQ- OP= Multidimensional Body Self Relations Questionnaire overweight preoccupation subscale; AS= Appearance Schemas Inventory self-evaluation subscale; FRS= Figure Rating Scale; BDI- Beck Depression Inventory; BMI= Body Mass Index. **p<.01. p * <.05.

Table 15

Correlations for Attractiveness Model Rating Task for Caucasian Participant (n=80)

	ATT	UW	NW	OB	DT	BD	AE	OP	AS	FRS	BDI	BMI
ATT	1.00	.52**	.88**	.92**	-.39**	-.16	.11	-.30**	-.20	.11	-.19	.09
UW		1.00	.50**	.30**	-.11	-.06	-.04	-.13	-.09	.01	-.12	.08
NW			1.00	.71**	-.41**	-.10	.06	-.35**	-.24*	.03	-.19	.18
OB				1.00	-.36**	-.18	.15	-.28**	-.17	.17	-.19	.02

Note. ATT= Mean attractiveness score; UW- Underweight model attractiveness scores;
NW- Normal weight model attractiveness scores; OB- Obese model attractiveness scores;
DT= Drive for thinness subscale; BD= Body Dissatisfaction subscale; MBSRQ- AE=
Multidimensional Body Self Relations Questionnaire appearance-evaluation subscale;
MBSRQ- OP= Multidimensional Body Self Relations Questionnaire overweight
preoccupation subscale; AS= Appearance Schemas Inventory self-evaluation subscale;
FRS= Figure Rating Scale; BDI- Beck Depression Inventory; BMI= Body Mass Index.
**p<.01. p * <.05.

Table 16

Mean EDI, MBSRQ, ASI, and FRS Scores by Participant Ethnicity (N=158)

Model BMI	African American (n=78) Mean(SD)	Caucasian (n=80) Mean(SD)	(p)
DT	3.59(.40)	4.46(.53)	.27
BD	9.65(.20)	9.11(.33)	.62
BUL	.61(.98)	.66 (.30)	.85
MBSRQ-AE	3.40(.78)	3.33(.86)	.20
MBSRQ-OP	2.62(.88)	2.77(.93)	.42
ASI-AS	2.81(.62)	3.16(.66)	.90
FRS	-1.54(1.05)	-.1.09(1.16)	.91
Perceived Current Body Size	5.18(1.45)	4.25(1.31)	.00*
Ideal Body Size	3.64(1.11)	3.16(1.12)	.01*

Note. Dare are presented as mean (standard deviation). DT= Drive for thinness subscale; BD= Body Dissatisfaction subscale; BUL- Bulimia subscale; MBSRQ- AE= Multidimensional Body Self Relations Questionnaire appearance-evaluation subscale; MBSRQ- OP= Multidimensional Body Self Relations Questionnaire overweight preoccupation subscale; AS= Appearance Schemas Inventory self-evaluation subscale; FRS= Figure Rating Scale. * p<.01.

Figure 1: Mean Attractiveness Scores by Attire and Model Weight for AA Models (n=158)
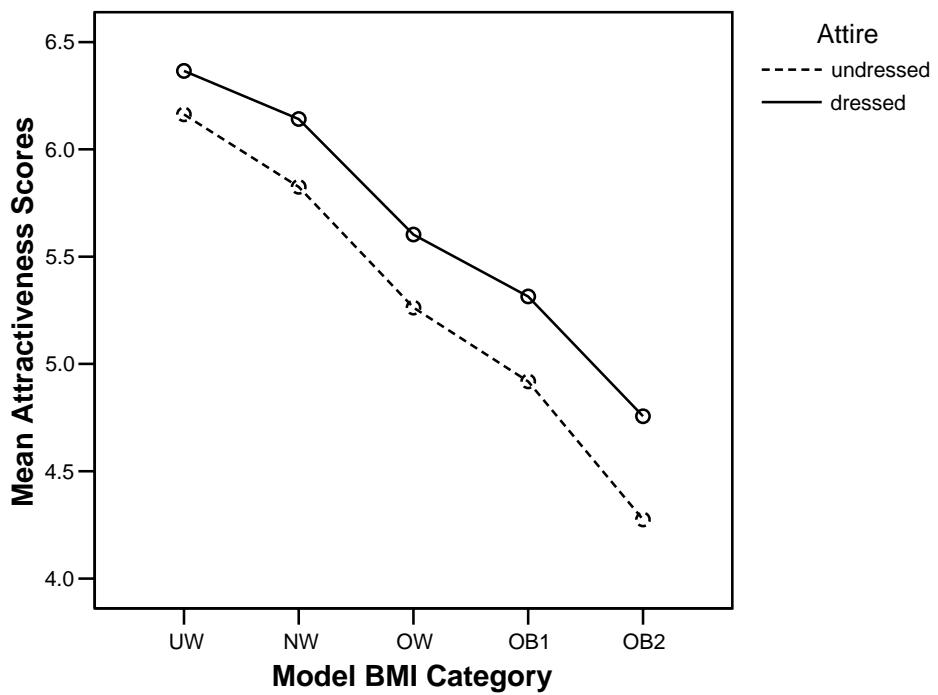
Figure 2: Mean Attractiveness Scores by Attire and Model Weight for CC Models (n=158)
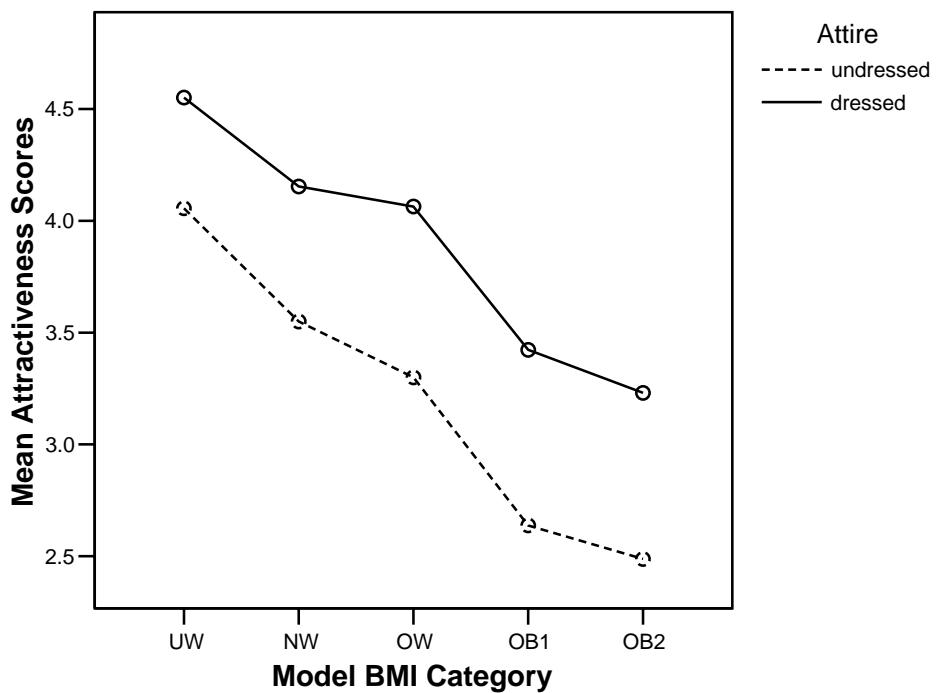
Figure 3: Mean Attractiveness Scores by Participant Ethnicity and Model Weight for AA Models (n=158)
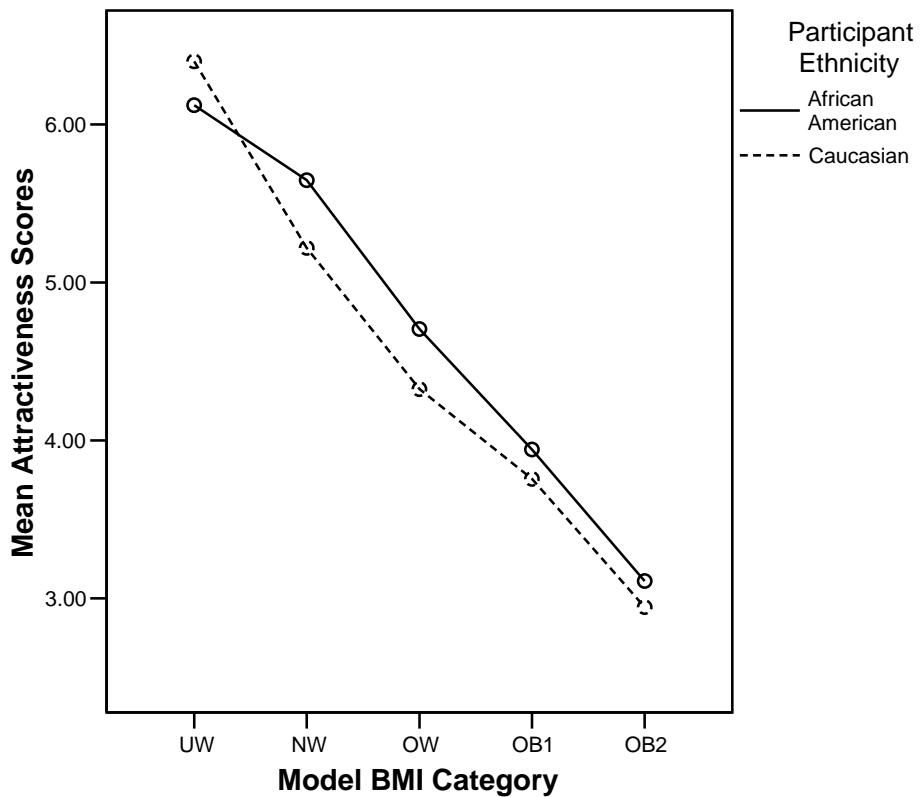
Figure 4: Mean Attractiveness Scores by Participant Ethnicity and Model Weight for CC Models (n=158)
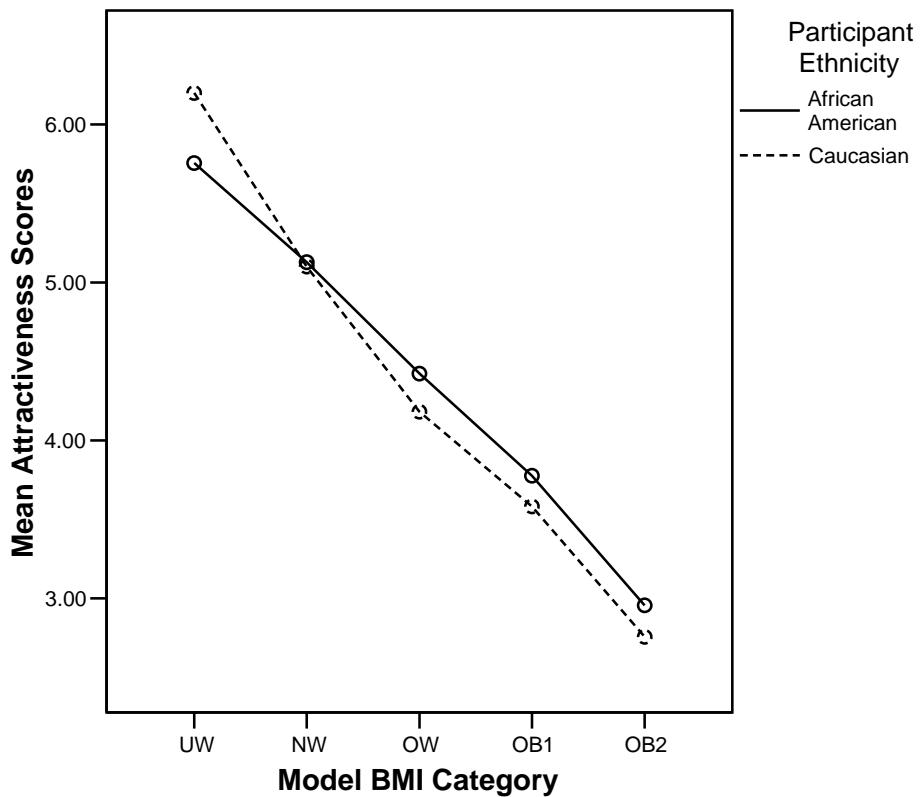
Figure 5: Mean Attractiveness Scores by Model Ethnicity and Model Weight (n=158)
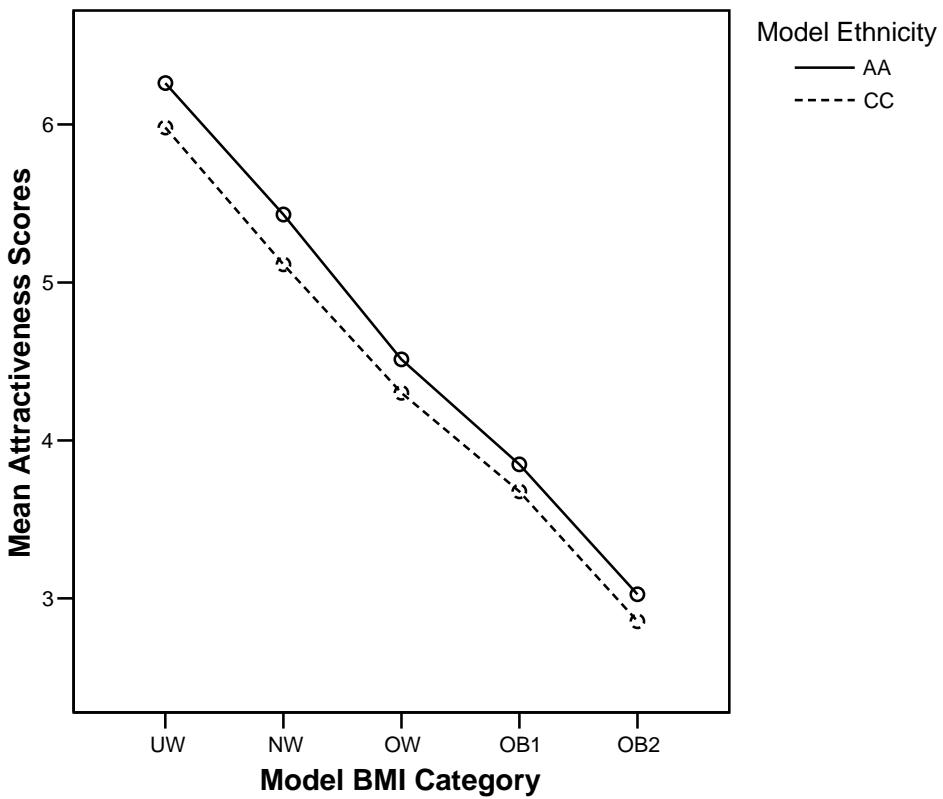
Figure 6: Mean Health Scores by Participant Ethnicity and Model BMI   (n= 158)
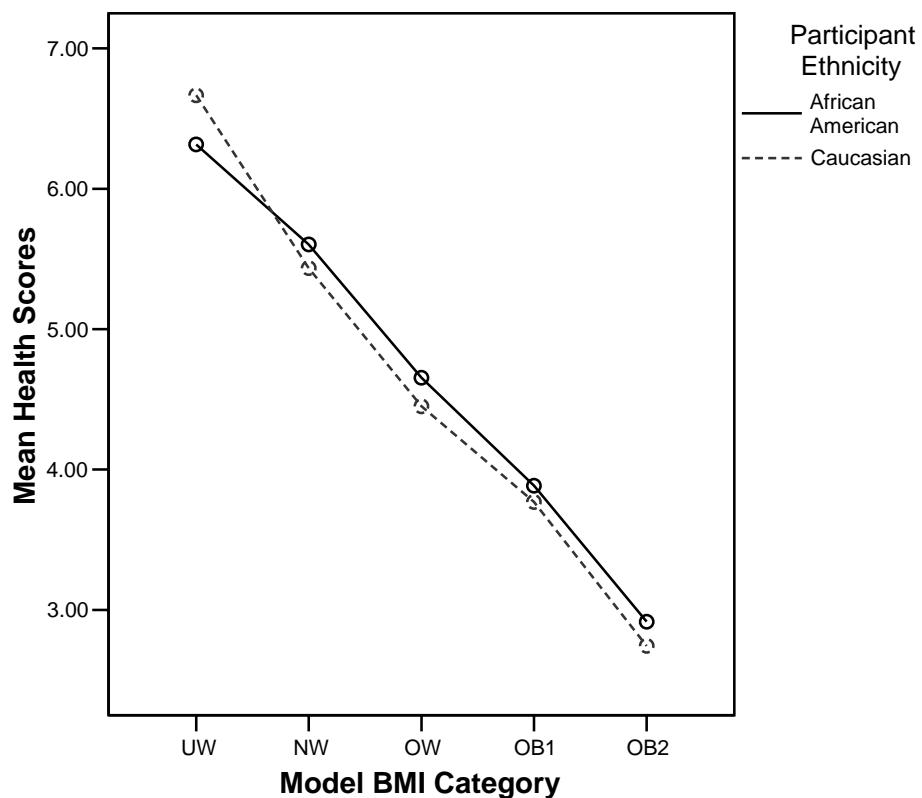
Figure 7: Relationships Between Attractiveness Scores and Self-Report Measures

Figure 8: Study Conceptual Model

CC Women-
Single factorial
view
body size

AA Women-
Multifactorial
view
attire, grooming, body
size

Risk Factor
for
Extreme
Dieting,
BDD, AN
and BN

Risk Factor
Obesity
and BED

Appendix A

Script for Model Rating Activity

"Now we will begin the model rating activity. This portion will take approximately 40 minutes. Each you should have been given a Model Rating Form packet when you checked in. Does everyone have their packet? There should be 20 Model Rating Forms in your packet. Does everyone have 20 forms? OK.

You are going to be asked to rate a total of 20 models of degree of attractiveness using the 8-point scale provided. So, you have one form to rate each model, for a total of 20 forms. Please look at Model Rating Form 1, as I review this form and the instructions.

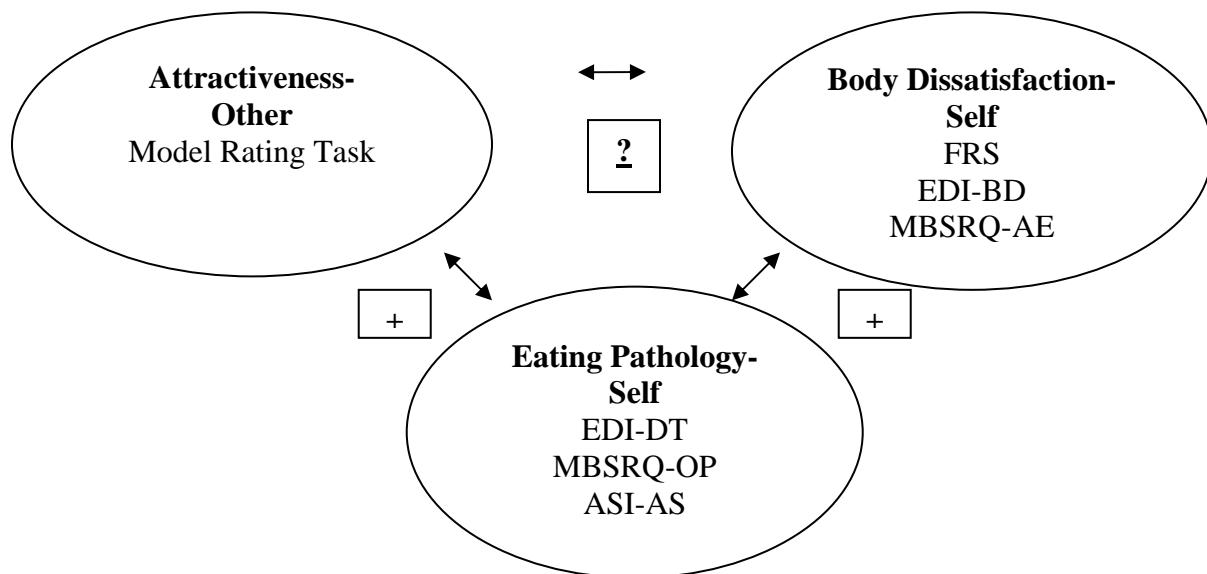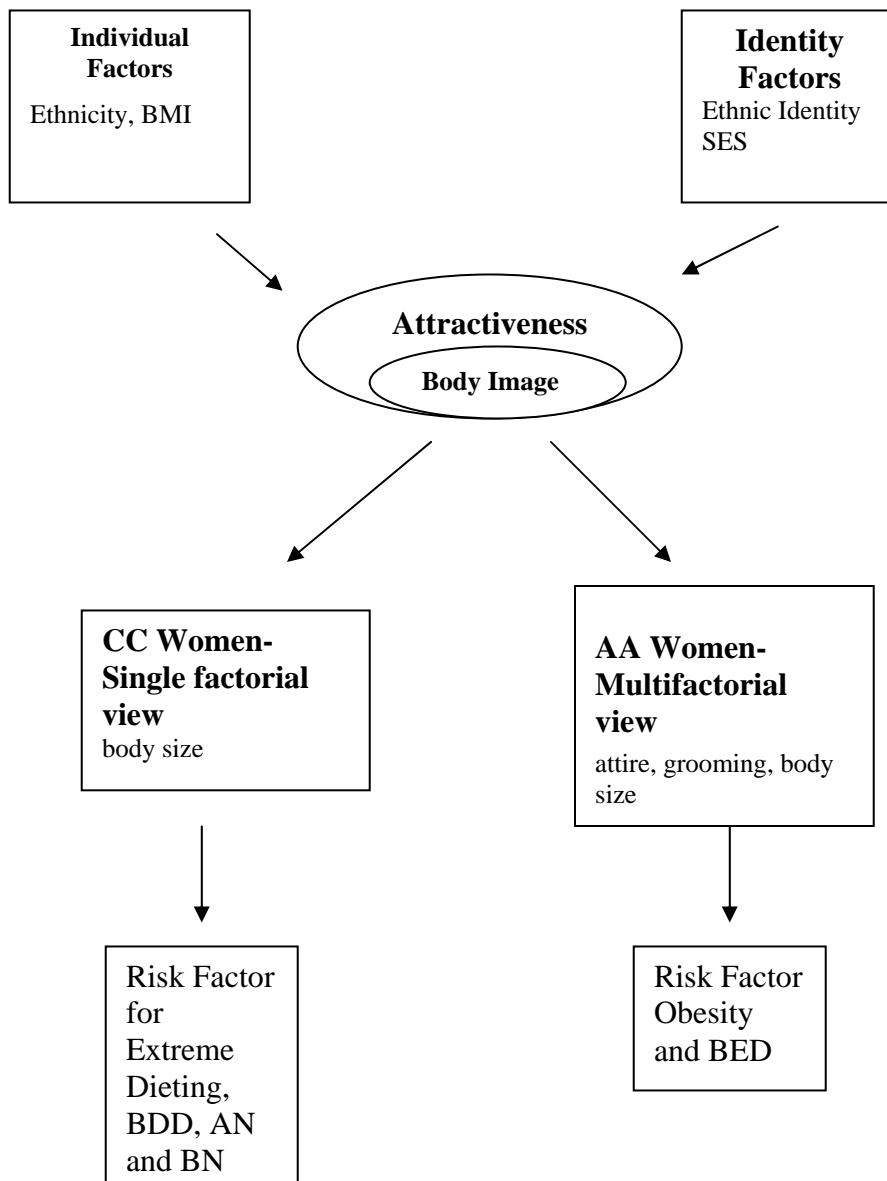You will be presented with one model at a time on the projection screen here. Each model will be projected on the screen for two minutes, so that you have enough time to rate the model's attractiveness. During the two minutes that the model is projected on the screen, I need you to rate the model on attractiveness using the 8-point scale above, where 1 equals extremely unattractive to 8 extremely attractive. Place your rating on the line provided on the model form. You will only be given 2 times to rate each model.

For example, if you think a particular model is very attractive, you would give her an attractiveness rating of a 7. If you think the model was somewhat unattractive, you would give that model a rating of 3. Remember, to place your rating for each model on the line provided.

In order to keep track of what model you are rating, the model will be numbered on the screen. Also, each model form is numbered 1 to 20, so that you know you are rating the correct model projected on the screen. Periodically during the rating activity, I will make sure that we are all rating the same model".

Do you have any questions before we begin? If not, then we will begin now.

Quality Check at models 5, 10, 15, and 20:

"I just wanted to check to see if we are all together and rating the same model. Did everyone just rate model 5, 10..?

Appendix B

PHONE SCREEN

Interviewer: _____   Date:_____

1. How did you hear about the study?
    ☐ Newspaper
    ☐ Flyer
    ☐ Referral
    ☐ Other: Specify _____

2. Age_____   3. Gender: F   M   4. Race: _____
5. Height_____ inches   6. Weight_____ pounds

7. Are you in the military?   YES   NO

8. Do you currently suffer from an eating disorder?   YES   NO
    If yes, what eating disorder: _____
    If yes, volunteer is not eligible
    If no, ask a-g.
        a. Do you frequently skip meals to control weight? YES   NO
        b. Do your frequently go without eating for more than 8 or more waking
        hours?   YES   NO
        c. Do you spend most of your time thinking about food, eating or
        counting calories?   YES   NO
        d. Do you frequently vomit after eating?   YES   NO
        e. Do you typically eat a large amount of food then eat very little to
        compensate for overeating?   YES   NO
        f. Do you typically eat a large amount of food and feel like you can not
        stop?   YES   NO
        g. Do you spend most of your time thinking about your body size, weight,
        or shape?   YES   NO
    **If volunteer responds "YES" to 4 or more of questions a-g, volunteer is not
    eligible.**

9. Has a physician or psychologist ever diagnosed you had an eating disorder?
    YES   NO
    If yes, what was your diagnosis:_____
    When were you diagnosed with this disorder?_____
    What type of treatment and for how long did you receive treatment?

_____
10. Are you currently trying to lose weight?   YES   NO
11. Do you have a history of weight loss attempts?   YES   NO
12. Have you recently lost a significant amount of weight?   YES   NO
    If yes, how much?_____

If yes, how did you lose the weight? _____
13. Are you currently pregnant?   YES   NO
   If yes, volunteer is not eligible.
14. Have you been told by a physician, psychiatrist or psychologist that you have or had:

   A. Schizophrenia   YES   NO
       1. Have you ever heard voices?   YES   NO
       2. Do you frequently see or hear things that other
       people don't see or hear?   YES   NO
   B. Depression   YES   NO
   C. Any Other Major Psychological/Psychiatric Problem   YES   NO
   If yes, what is/was your diagnosis?_____
   When were you diagnosed?_____
   If volunteer responds "YES" to questions 14A, 14A1, or 14A2, volunteer is not eligible.

   D. Have you sought treatment for any of these problems?   YES   NO
       If yes, when? _____

   E. Have you been told that this condition is resolved?   YES   NO

15. Are you currently or have ever been treated for any <u>other</u> medical condition?
                                                                           YES   NO
   If yes, what condition?_____
   If yes, when were treated? _____

16. Have you suffer from any medical condition that has resulted in any body disfiguration?
                                                     YES   NO
   If yes, what type of body disfiguration_____

17. Are you currently taking any medications?   YES   NO
   If yes, what medications, for what, for how long, and how much?
   _____
   _____
   _____
   If medications indicate eating or psychotic disorder, volunteer is not eligible.
If still eligible to participate:

Name: _____

Address: _____

Home Phone: _____ Work Phone: _____

Fax: _____ E-mail: _____

Participant prefers (circle one): Fax Mail E-Mail
ID# issued: _____ Interview Date: _____ Group: N   S

Appendix C

DEMOGRAPHICS

SUBJECT ID:_____   **DATE:**_____

Date of Birth _____   Age _____

Height(ft/in) _____   Weight(lbs) _____

Ethnicity:
Please check one or more.

_____	Caucasian	_____	Black or African American, Non-Hispanic
_____	African	_____	West Indian or Caribbean
_____	Hispanic or Latino	_____	Asian
_____	American Indian	_____	Native Hawaiian or other Pacific Islander
_____	Other _____	_____	Alaskan Native

Marital Status:
Please check one.

_____	Single, Never Married	_____	Separated
_____	Married	_____	Widowed
_____	Divorced	_____	Living Together

Education:

Highest degree earned _____

Please circle highest grade completed:
      1 2 3 4 5 6 7 8 9 10 11 12 | 13 14 15 16 | 17 18 19 20 21 22

Please check highest level of education completed.

_____	Some high school	_____	Completed College
_____	Competed high school/GED	_____	Partial Graduate/Professional school
_____	Some College	_____	Completed Graduate school/Professional school

Occupation: _____

Employment Status:
Please check one.

_____ Retired		_____ Homemaker	
_____ Full-time		_____ Disabled	
_____ Part-time		_____ Unemployed	

Annual Household Income:

Please check next to the amount that most closely indicates your total yearly household income.

_____ Below $20,000		_____ $40,000-$50,000	
_____ $20,000-$30,000		_____ $50,000-$60,000	
_____ $30,000-$40, 000		_____ $60,000-$70,000	
		_____ Above $70,000	

Appendix D

BDI-II

Instructions. This questionnaire contains 21 groups of statements. Please read each group of statement carefully, and then pick out the ONE statement in each group that best describes the way you been feeling during the **past two weeks, including today**. Circle the number besides the statement you have picked. If several statements in the group seem to apply, choose the one that most applies. Be sure that you do not choose more than one statement for any group, including Item 16 (Changes in sleeping patterns) or Item 18 (Changes in appetite).

1.
   0   I do not feel sad
   1   I feel sad much of the time
   2   I feel sad all the time
   3   I am so sad or unhappy that I can't stand it

2.
   0   I am not discouraged about my future
   1   I feel more discouraged about my future than I used to be
   2   I do not expect things will work out for me
   3   I feel my future is hopeless and will only get more

3.
   0   I do not feel like a failure
   1   I have failed more than I should have
   2   As I look back, I see a lot of failures
   3   I feel I am a total failure as a person

4.
   0   I get as much pleasure as I ever did from the things I enjoy
   1   I do not enjoy things as such as I used to
   2   I get very little pleasure from the things I used to enjoy
   3   I can't get any pleasure from the things I used to enjoy

5.
   0   I don't feel particularly guilty
   1   I feel guilty over many things I have done or should have done
   2   I feel quite guilty most of the time
   3   I feel guilty all of the time

6.
   0   I don't feel I am being punished
   1   I feel I may be punished
   2   I expect to be punished

3   I feel I am being punished

7.
  0   I feel the same about myself as ever
  1   I have lost confidence in myself
  2   I am disappointed in myself
  3   I dislike myself

8.
  0   I don't criticize or blame myself more than usual
  1   I am more critical of myself than I used to be
  2   I criticize myself for all my faults
  3   I blame myself for everything bad that happens

9.
  0   I don't have any thoughts about killing myself
  1   I have thoughts of killing myself, but I would never carry them out
  2   I would like to kill myself
  3   I would kill myself if I had the chance

10.
  0   I don't cry anymore than I used to
  1   I cry more than I used to
  2   I cry over every little thing
  3   I feel like crying, but I can't

11.
  0   I am mo more restless or wound up than usual
  1   I feel more restless or wound up than usual
  2   I am so restless or agitated that it's hard to stay still
  3   I am so restless or agitated that I have to keep moving or doing something

12.
  0   I have not lost interest in other people or activities
  1   I am less interested in other people or things than before
  2   I have lost most of my interest in other people or things
  3   It's hard to get interested in anything

13.
  0   I make decisions about as well as ever
  1   I find it more difficult to make decisions than usual
  2   I have a much greater difficulty in making decisions than I used to
  3   I have trouble making any decisions

14.
0   I don't feel I am worthless
1   I don't consider myself as worthwhile and useful as I used to
2   I feel more worthless as compared to other people
3   I feel utterly worthless

15.
0   I have as much energy as ever
1   I have less energy than I used to have
2   I don't have enough energy to do very much
3   I don't have enough energy to do anything

16.
0   I have not experienced any change in my sleeping pattern

1a   I sleep somewhat more than usual
1b   I sleep somewhat less than usual

2a   I sleep a lot more than usual
2b   I sleep a lot less than usual

3a   I sleep most of the day
3b   I wake up 1-2 hours early and can't get back to sleep

17.
0   I am no more irritable than usual
1   I am more irritable than usual
2   I am much more irritable than usual
3   I am irritable all the time

18.
0   I have not experienced any changes in my appetite
1a   My appetite is somewhat less than usual
1b   My appetite is somewhat greater than usual

2a   My appetite is much less than before
2b   My appetite is much greater than before

3a   I have no appetite at all
3b   I crave food all the time

19.
0   I can concentrate as well as ever
1   I can't concentrate as well as usual
2   It's hard to keep my mind on anything for very long
3   I find I can't concentrate on anything

20.
0   I am no more tired or fatigued than usual
1   I get more tired or fatigued more easily than usual
2   I am too tired or fatigued to do a lot of things I used to do
3   I am too tired or fatigued to do most of the things I used to do

21.
0   I have not noticed any recent change in my interest in sex
1   I am less interested in sex than I used to be
2   I am much less interested in sex now
3   I have lost interest in sex completely

Appendix E- Models provided on CD

Model Rating Form

For each of the 20 models, rate each model's attractiveness on the following scale:
Choose the number response that <u>most</u> applies.

1	2	3	4	5	6	7	8
extremely unattractive	very unattractive	somewhat unattractive	slightly unattractive	slightly attractive	somewhat attractive	very attractive	extremely attractive

<u>MODEL # 1</u>

a. How attractive is this model? _____

b. Using the scale below, to what degree do you desire to look like this model? _____

    1= not at all
    2= a little
    3= somewhat
    4= a lot
    5= extremely

c. Based on your response to #c, why do you desire or not desire to look like this model? Choose the <u>one</u> response that <u>most</u> applies.

    ☐ Her body is too skinny
    ☐ Her body is too fat
    ☐ Her body is just right
    ☐ Her attire is poor
    ☐ Her attire is ok
    ☐ Her attire is excellent

Appendix G

Weight/Height Log

ID#	**Weight(lbs)**	**Height (ft/in)**
001	_____	_____
002	_____	_____
003	_____	_____
004	_____	_____
005	_____	_____
006	_____	_____
007	_____	_____
008	_____	_____
009	_____	_____
010	_____	_____
011	_____	_____
012	_____	_____
013	_____	_____
014	_____	_____
015	_____	_____
016	_____	_____
017	_____	_____
018	_____	_____
019	_____	_____
020	_____	_____
021	_____	_____
022	_____	_____
023	_____	_____
024	_____	_____
025	_____	_____
026	_____	_____
027	_____	_____
028	_____	_____
029	_____	_____
030	_____	_____
031	_____	_____
032	_____	_____
033	_____	_____
034	_____	_____
035	_____	_____
036	_____	_____
037	_____	_____
038	_____	_____
039	_____	_____
040	_____	_____

Appendix H

MEIM

In this country, people come from a lot of different cultures and there are many different words to describe the different backgrounds of ethnic groups that people come from. Some examples of names of ethnic groups are Mexican American, Hispanic, Black, Asian American and White. Every person is born into an ethnic group, or sometimes two groups, but people differ on how important their ethnicity is to them, how they feel about it, and how much their behavior is affected by it. The questions on this form are about your ethnicity or your ethnic group and how you feel about it or react to it.

Please fill in:

In terms of ethnic group, I consider myself to be _____

Use the numbers below to indicate how much you agree or disagree with each statement. Only give <u>one</u> number for each statement.

4: Strongly agree   3: Somewhat agree   2: Somewhat disagree   1: Strongly disagree

1. I have spent time trying to find out about my own ethnic group, such as its history, traditions, and customs _____

2. I am active in organizations or social groups that include mostly members of my own ethnic group _____

3. I have a clear sense of my ethnic background and what it means to me _____

4. I like meeting and getting to know people from ethnic groups other than my own. _____

5. I think a lot about how my life will be affected by my ethnic group membership. _____

6. I am happy that I am a member of the group I belong to. _____

7. Sometimes I feel it would be better if different ethnic groups didn't try to mix together. _____

8. I am not very clear about the role of my ethnicity in my life. _____

9. I often spend time with people from ethnic groups other than my own. _____

10. I really have not spent much time trying to learn more about the culture and history of my ethnic group. _____

11. I have a strong sense of belonging to my own ethnic group. _____

12. I understand pretty well what my ethnic group membership means to me in terms of how to relate to my own group and other groups _____

13. In order to learn more about my ethnic background, I have often talked to other people about my ethnic group. _____

14. I have a lot of pride in my ethnic group and its accomplishments. _____

15. I don't try to become friends with people from other ethnic groups. _____

16. I participate in cultural practices of my own group, such as special food, music, or customs. _____

17. I am involved in activities with people from other ethnic groups. _____

18. I feel a strong attachment towards my own ethnic group. _____

19. I enjoy being around people from ethnic groups other than my own. _____

20. I feel good about my cultural or ethnic background. _____

21. My ethnicity is (circle ONE):

    1   Asian, Asian American, or Oriental
    2   Black or African American
    3   Hispanic or Latino
    4   White, Caucasian, European, not Hispanic
    5   American Indian
    6   Mixed; parents are from two different groups
    7   Other (please specify)_____

22. My father's ethnicity is (choose from numbers above) _____

23. My mother's ethnicity is (choose from numbers above) _____

USUHS: "Beauty is in the Eyes of the Beholder: Definitions of Attractiveness and Health among African American and Caucasian Women"
Department of Medical and Clinical Psychology
Phone: 301-295-3672
Fax: 301-295-3034

Dear Participant:

The Department of Medical and Clinical Psychology of the Uniformed Services University of Health Sciences (USUHS) in Bethesda, Maryland thanks you for your interest in participating as a voluntary subject for this research project.

You will be asked to complete many different types of questionnaires. Most of these questionnaires are related to eating, physical activity, health perception and your opinions of body image and attractiveness. However, the following questionnaires: the Multigroup Ethnic Identity Measure, Phinney, Author) have been developed by researchers to assess ethnicity and racial identity. These questionnaires have been used in past research studies in areas such as eating disorders, body image, occupational achievement, health care utilization, test performance, and medical/psychological disease presentation, diagnosis, and treatment in ethnically diverse populations. These questionnaires have been found to be valid and reliable measures. This means the questionnaires are good at measuring a person's ethnicity and racial identity, and consistently produce the same results each time the questionnaires are given. Despite the proven reliability and validity of these measures, we understand that some of the questions and statements may make you feel uncomfortable and may seem stereotypical. As always, you are free to refuse to answer any of these questionnaires. The data collected from these questionnaires will help us to study the effect of racial identity on attitudes and beliefs regarding attractiveness and health among women of different ethnicities. We assure you that your answers will remain completely confidential.

In working with past participants, we know that some participants have questioned our motives for using these questionnaires. I want to assure you that neither I, nor my advisor promotes or holds credence to any of the stereotypical views illustrated. This scale, however, have been validated through scientific process to measure self-identity accurately, making them very important to this project.

Again, we sincerely thank you for your willingness to participate in this project.

Sincerely,

Dawnavan S. Davis, M.S.   Tracy Sbrocco, Ph.D.
Principal Investigator   Associate Professor- Advisor
Department of Medical & Clinical Psych   Department of Medical & Clinical Psych

WHAT IS ATTRACTIVE TO YOU?

We are looking for healthy African American and

Caucasian Women

18-60 years old
to take part in a study examining definitions of

attractiveness and health among women of different

racial groups

*Participation will be compensated and includes a
<u>one-time</u> interview and completing
questionnaires about body image, self-esteem,
racial identity, and health behavior*

*If you are interested, please call
Dawnavan Davis at*

301-295-3672

Script for Phone Screen

"Hello, my name is _____. I am calling you back regarding the attractiveness and health study. Do you have a few minutes to talk right now?"

        If no: "When can I call you back?"
        If yes: *go on*.

"I'd like to tell you a few things about the study first and then I'll be glad to answer any questions that you might have, OK? This study is designed to compare African American and Caucasian women's views about attractiveness and health as it relates to body size. We are interested in understanding how definitions of attractiveness and health are similar and/or different among African American and Caucasian women aged 18-60 years old.

If you are eligible and agree to participate, you will be mailed of questionnaire packet and informed consent prior to your scheduled appointment at the university. You will be asked to complete the entire questionnaire packet and review the informed consent before your interview. The questionnaire packet will contain approximately 12 brief questionnaires that will ask you questions about your eating behavior, physical activity, body image, health perception, views of attractiveness, racial identity, and basic demographic and contact information.

Once you agree to participate, you will also be assigned to one of two model groups: undressed or dressed models. At your scheduled appointment at the university, you will be asked to rate dressed or undressed models on degree of attractiveness and health. This one time interview will last approximately 90 minutes. You will also be asked to sign another informed consent and your weight and height will be taken upon your arrival to the 90-minute interview. Depending on which group you are assigned to, you will have to come to the university on either a Monday, Wednesday or Thursday evening from 6:00 to 7:30 p.m. for your 90-minute interview. When you turn in your questionnaire packet and complete your interview at the university, you will be mailed a check for $50.00.

So again, participation involves completing of a questionnaire packet and attending a one time 90-minute interview at the Uniformed Services University.

The Uniformed Services University is near the National Naval Medical Center and across the street from NIH in Bethesda, Maryland off of Wisconsin Ave. The study is being run by a senior graduate student who has Masters Degrees in Medical Psychology and Community Health Education and has had 7 years of experience in working with ethnically-diverse women in the community.

Does this sound like something you would be interested in?"

        If no: "Thank you for your interest."
        If yes: "Do you have any questions about the study?

Ok, now I will need to ask you some questions to see if you meet criteria for this study."
You are free to answer or not answer any of the following questions.

-----------------------------COMPLETE PHONE SCREEN-----------------------------

If the caller does not meet requirements: "I am sorry, but you do not meet the requirements for this study. This doesn't mean that there is something wrong with you, it simply means that we are looking at very specific criteria for this particular study. It is very important for research purposes that our participants look as similar to each other as possible.

Thank you for your interest."

If caller meets requirements thus far: "Do you have any questions?"

"We will be mailing a questionnaire that asks you about how you have been feeling over the last two weeks.   I need you to fill that survey out as soon as you receive it and mail it back to me using the self-addressed envelope that will be included. Once I get the questionnaire back from you, I will score it and then call you to tell you whether you qualify for the study. I will call you in a few days to see if you received the questionnaire by mail.

Again, I want to thank you for your interest in the study, if you have any questions, please feel free to contact me at 301-295-3672 any time. I will be contacting you by phone in the next few days.

Appendix L

UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES (USUHS)

F.EDWARD HEBERT SCHOOL OF MEDICINE
4301 JONES BRIDGE ROAD
BETHESDA, MARYLAND 20814-4799

Informed Consent for a Research Study on Definitions of Attractiveness and Health Across Ethnicity

Title of Project: "Beauty is in the Eyes of the Beholder: Definitions of Attractiveness and Health among African American and Caucasian Women"

Principal Investigator: Dawnavan S. Davis, M.S.

TO PERSONS WHO AGREE TO PARTICIPATE IN THIS STUDY:

The following information is provided to inform you about the research project and your participation in it. Please read this form carefully and feel free to ask any questions you may have about this study and/or about the information given below. You will be given a copy of this document for your own records.

It is important that you understand that your participation in this study is totally voluntary. **You may refuse to participate or choose to withdraw from this study at any time.**

If, during the course of the study you should have any questions about the study, your participation in it, or about your rights as a research volunteer, you may contact one of the following:

Dawnavan Davis, M.S. at 301-295-3672
Department of Medical & Clinical Psychology, USUHS, Bethesda, MD 20814-4799

Tracy Sbrocco, Ph.D. at 301-295-9674
Department of Medical & Clinical Psychology, USUHS, Bethesda, MD 20814-4799

Office of Research at 301-295-3303
USUHS, Bethesda, Maryland 20814

1. INDICATED BELOW ARE THE FOLLOWING:

   a. **THE PURPOSE OF THIS STUDY**
   b. **THE PROCEDURES TO BE FOLLOWED**
   c. **THE APPROXIMATE DURATION OF THE STUDY**

1a. THE PURPOSE OF THIS STUDY:

Research suggests that African American and Caucasian women may have different definitions of attractiveness and health. Specifically, African American and Caucasian women may have different views of attractiveness and health as it relates to

one's body size and weight status. These differences in perceptions of attractiveness and health may result in differences in ideal body size, body dissatisfaction and health behavior across ethnic groups. However, the relationships between body size and weight status and perceptions of attractiveness and health among adult women are still not clearly understood.

Given the divisions regarding perceptions of attractiveness and health among African American and Caucasian women stated above, the purposes of the present study are to: 1) assess racial differences in attractiveness as it relates to body size; 2) examine the importance of attire versus thinness in defining beauty across racial groups; 3) determine the relationship between health and body size across racial groups; and 4) assess the effects of key demographic factors (e.g., age, race, educational level) and sociocultural factors (e.g., self-esteem, racial identity, peer comparison) on definitions of attractiveness and health.

Different views of attractiveness and health across race may serve as risk or protective factors for obesity and eating disorders among certain subsets of the population. Given the goal of primary prevention with regard to obesity and eating disorders, a thorough examination of the definitions of attractiveness and health across racial groups may be critical for research, education, and intervention efforts for all women.

1b. THE PROCEDURES TO BE FOLLOWED:

EVENT	Approx. Time
Part I:	
Phone Screening	**10 minutes**
BDI-II completion	**10 minutes**
Review of Study Informed Consent and Questionnaires	**10 minutes**
Questionnaire Completion	**60 minutes**
	90 minutes
Part II:	
Interview	
1. Interview Study Informed Consent Form reviewed and signed	**30 minutes**
2. Weight and Height measurements taken	**5 minutes**
3. Questionnaires collected and reviewed	**5 minutes**
4. BDI-II completed	**10 minutes**
5. Attractiveness and Health Model Rating activity	**40 minutes**
	90 minutes **Total Time:** **3 hours**

- **Phone Screening:**

During the initial phone screening, you will be ask questions about your general physical and mental health, height, weight, age, race, and any medications you are taking.

Eligibility for participation in this study will be based on your responses during the phone interview and responses to a depression questionnaire. If you suffer from an eating disorder, elevated depressed mood or depression, have severe psychological problem, or are taking medications that may alter your perceptions or significantly impact your weight you will not be eligible to take part in the study. The initial phone screen interview will last approximately 10 minutes.

- **Depression Screening**

After the initial phone screen, you will be mailed the Beck Depression Inventory-II (Beck et al. 1996) that will ask you questions about how you have been feeling over the last two weeks. You will be asked to complete this survey and mail to back to the principal investigator in a self-addressed envelope that will be provided. Once you have returned the depression questionnaire, it will be scored by a member of the research team. After the survey is scored, we will contact you to inform you of whether are eligible to participate in the study.
   - If you are <u>not</u> eligible to take part in the study, you will be notified by phone and provided a list of health services in the community.

   - If you are eligible to participate, you will be contacted by phone. During that phone call you will receive an identification (ID) number and mailed a questionnaire packet.

- Informed Consent and Questionnaire Packet:

Once you are determined to be eligible to take part in this study by completion of the phone screen and depression screen, you will be mailed an Informed Consent Form and a questionnaire packet containing 12 surveys. Once you receive this packet by mail, you are asked to call the principal investigator, Dawnavan Davis, at 301-295-3672 to review the informed consent and answer any questions you have regarding participation, the informed consent, or questionnaires. You will be asked to verbally consent to participate in the study, while on the phone once all your questions have been addressed. You will asked to sign the Informed Consent document when you attend your 90-minute interview.

The questionnaire packet and the letter for the Multigroup Ethnic Identity Measure will reviewed with you. You will have an opportunity to ask any questions about this survey or any other survey included in the packet. At the end of this phone call, you will be given your scheduled 90-minute interview date, time, and location. This phone encounter will take approximately 10 minutes. <u>Please remember to bring your completed questionnaire packet with you to your 90-minute interview</u>.

- **90-minute Interview**

Your interview date and time will be given to you after you verbally agree to participate in the study over the phone. Your one-time 90-minute interview will be held at the Uniformed Services University of the Health Sciences in Bethesda, Maryland. Interviews will be held on Monday, Wednesday, or Thursday evenings. You will receive a reminder call regarding your interview two days prior to your interview date.

Upon arrival to your interview, your questionnaires will be collected and reviewed be our research staff. Your height and weight measurements will also be taken by our research team. The principal investigator will then review the Study Informed Consent Form with you, which will cover the entire study and the interview part of the project. The principal investigator will answer any additional questions you have about the study. Once all your questions have been answered you will be asked to sign and date the Informed Consent Form.

During your 90-minute you will also be asked to complete the depression questionnaire for a second time to determine your mood prior to completing the model rating activity. The depression survey will be scored immediately by member of research staff. In the event that you have an elevated depression score at the time of your visit, the principal investigator will explain what this score may indicate and will provide you with a list of health services in the community. You will still be able to complete the model rating activity and be paid the full $50.00 for your participation.

To determine your views of attractiveness and health, you will be asked to complete of a group model rating activity during your interview. The model rating activity will involve you rating several models of degree of attractiveness and health. Each model will be presented on a projection screen for 2 minutes. During the three-minute period, you will be asked to rate the model's attractiveness and health, and how much you desire to look like each model. You will rate several models as part of this activity. The model rating activity portion of the interview will take approximately 40 minutes. **There are no follow-up appointments as part of this study.**

- **Payment for Participation**

Once your questionnaire packet has been returned and reviewed for completeness, and you have completed your 90-minute interview, you will be sent a $50.00 check in the mail for participation. You will be asked to complete a Payment Form at the end of your interview in order to receive your $50.00. You should allow about 3-4 weeks to receive your payment in the mail.
NOTE: Eligible participants who complete all parts of the study will be paid $50 for their participation. There is no payment for only completing packet or interview in isolation.

1c. DURATION OF THE STUDY

Your involvement in the study will last approximately 3-4 weeks from initial phone screen to the completion of your 90-minute interview. Information from other women in the DC metro area will be gathered over the next several months. Data collection for this study will begin in July 2004 and end December 2004.

2. THIS STUDY IS BEING DONE SOLELY FOR THE PURPOSES OF RESEARCH.

3. DISCOMFORTS, INCONVENIENCES AND/OR RISKS THAT CAN BE REASONABLY EXPECTED ARE:

We do not anticipate any risks to you as part of participation in this study. However, we understand that some of the questions and statements in the questionnaires could make you feel uncomfortable and could seem stereotypical. As always, you are free to answer or not answer any of the questions.

4. POSSIBLE BENEFITS TO YOU THAT MAY BE REASONABLY EXPECTED ARE:

You may gain a better understanding of your views of attractiveness and health, and how various factors such as your age, race, culture, peer group, and body ideals contribute to your definitions of beauty and health. Your involvement in this study may provide insight to how your personal definitions of attractiveness and health affect your own health behaviors and health choices.

5. THE BENEFITS TO SCIENCE AND TO HUMANKIND THAT ARE SOUGHT IN THIS STUDY ARE:

You will be providing information that may be helpful in expanding scientific knowledge about views of attractiveness and health in women of different racial groups. The results of this study may help us gain a better understanding of how beauty ideals and health perceptions are related to various body types among women of different ethnicities, and how definitions of attractiveness and health are influenced by sociocultural, individual, and environmental factors. Such information may influence future research, education, and treatment for obesity and eating disorders in women of different racial groups, and assist in the development of culturally-sensitive programs to address these diseases.

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6. ALTERNATIVE AVAILABLE PROCEDURES:

The alternative to participating in this study is for you not to participate in this study.

7. CONFIDENTIALITY: YOUR RIGHTS, WELFARE, AND PRIVACY WILL BE PROTECTED IN THE FOLLOWING MANNER:

Only properly authorized persons such as those directly concerned with the study such as the principal investigator, investigator's advisor, research staff, Regulatory Authorities, and persons on the Institutional Review Board will be allowed access to your records. By signing the consent form attached, you are authorizing such access to your records.

Any information will be treated as strictly confidential in accordance with applicable laws and regulations, and will not be made publicly available. All information collected during the study will be held in the strictest confidentiality. You will be given an identification (ID) number once you complete the phone screen to ensure your privacy and confidentially. All questionnaires, forms, and charts will be kept in a restricted access, locket cabinet while not in use. To enhance the privacy of the answers you provide, data from questionnaires will be entered into a database in which individual responses are not identified. If information is published, your identity will not be revealed, you will be referred to only by your ID number. If you are a military member, please be advised that under Federal Law, a military member's confidentiality cannot be strictly guaranteed.

Note: YOU ARE FREE TO WITHDRAW THE CONSENT AND TO STOP PARTICIPATING IN THIS STUDY OR ANY ACTIVITY AT ANY TIME FOR ANY REASON.

8. RECOURSE IN THE EVENT OF INJURY:

This study should not entail any physical or mental risk to you. We do not expect any negative consequences associated with participation to occur, but if, for any reason, you feel that continuing this study would cause a hardship for you, you can end your participation in the study.

This study should not entail any physical or mental risk beyond those described above. We do not expect complications to occur, but if, for any reason, you feel that continuing this study would constitute a hardship for you, we will end your participation in the study.
In the event of a medical or psychological emergency while participating in this study or medical treatment required as a result of your participation in this study, you may receive emergency treatment in the facility you are in or a nearby Department of Defense (military) medical facility (hospital or clinic). Treatment/care will be provided even if you are not eligible to receive such care. Care will be continued until the medical doctor treating you decides that you are out of immediate danger. If you are not entitled to care in a military facility, you may be transferred to a private civilian hospital. The attending doctor or member of the hospital staff will go over the transfer decision with you before it

happens. The military will bill your health insurance for health care you receive which is not part of the study. You will not be personally billed and you WILL NOT be expected to pay for medical care at our hospitals. If you are required to pay a deductible you may make a claim for reimbursement through the Uniformed Services University Office of General Counsel. In case you need additional care following discharge from the military hospital or clinic, a military health care professional will decide whether your need for care is directly related to being in the study. If your need for care is related to the study, the military may offer you limited health care at its medical facilities. This additional care is not automatic.

If at any time you believe you have suffered an injury or illness as a result of participating this research project, you should contact Dr. Robert Bienvenu in the Office of Research at the Uniformed Services University of the Health Sciences, Bethesda, MD 20814 at 301-295-3303. This office can review the matter with you, provide information about your rights as a participant, and may be able to identify resources available to you. If you believe the government or one of the government's employees has injured you, a claim for damages (money) against the federal government (including the military) may be filed under the Federal Torts Claims Act. Information about judicial avenues of compensation is available from the University's General Counsel at 301-295-3028.

Should you have any questions at any time about the study or about your rights, you may contact the principal investigator, **Dawnavan S. Davis, M.S, Department of Medical & Clinical Psychology, USUHS, Bethesda, MD 20814-4799, at 301-295-3672.**

STATEMENT BY PERSON AGREEING TO PARTICIPATE IN THIS RESEARCH PROJECT:

I have read this consent form and I understand the procedures to be used in this study and the possible risks, inconveniences, and/or discomforts that may be involved. All of my questions have been answered. I freely and voluntarily choose to participate. I understand that I may withdraw at any time. My signature also indicates that I have received a copy of this consent form for my information.

SIGNATURES:

_____   _____
Signature of Volunteer   Signature of Witness

_____   _____
Volunteer Name (Printed)   Witness Name (Printed)

Date _____   Date_____

I certify that I, or my research staff, have explained the research study to the above individual, and that the individual understands the nature, purpose, possible risks and benefits associated in taking part in this research study. Any questions that have been raised have been answered.

_____   _____ _____
Investigator's Signature   Printed Name   Date

Appendix M- Randomization Chart

Appendix N

Interview Reminder

This form is to remind you of your scheduled visit on _____ from _____ to _____ at _____.

Remember to bring your completed questionnaires to this visit.

If you are unable to make this interview, please call me at 301-295-3672.

Thank you and I look forward to seeing you.

Sincerely,

Dawnavan S. Davis, M.S.
Principal Investigator

Appendix O

Directions to the Uniformed Services University in Bethesda, MD

BY METRO

Take the RED LINE to Medical Center. This is the NIH. USUHS is across Wisconsin Avenue on the National Naval Medical Center base. Wisconsin Avenue is also called 355 and Rockville Pike.

Cross Wisconsin Ave. Look for the entrance to the National Naval Medical Center base (Southwood Dr.)

STOP AT THE SECURITY CHECK POINT
 They will ask to see identification. Lately, a driver's license has been sufficient.

> If security is heightened, the procedures change a bit. If you have government id (if you work for NIH or other government institutions) you can simply show them and this should be adequate. If there is still a problem, have the guards call us at 301-295-3672 or 301-295-9664.

> Continue straight past security and take a right on Palmer Road. Continue straight past the NAVY HOSPITAL (on your left). Follow Palmer past a parking garage, and over a bridge.

> Turn Left onto GRIER road. You will be walking down hill into the underground parking area. You are now underneath USUHS. Walk straight until you see the ground floor entrance to building B. It will be on your left as you walk. (If you get confused, ask someone how to get to the security desk for USUHS. The security desk is on the ground floor of building B.)

> Take the elevator to the first floor of building B. The lab is adjacent to the cafeteria on the first floor, and the door is marked B-1022, Dept. of Psychology and Anesthesiology.

> NOTE: THE WALK FROM THE METRO TO USUHS IS USUALLY ABOUT 15-20 MINUTES, BUT YOU SHOULD GIVE YOURSELF AT LEAST 30 MINUTES (to get through security and find us).

BY CAR

FROM DOWNTOWN WASHINGTON
Take Wisconsin Ave North to Bethesda (Pass Jones Bridge Road)

Take a right at National Naval Medical Center (Southwood Road). This is the first street after Jones Bridge road.

STOP AT THE SECURITY CHECK POINT

They will ask to see identification. Lately, a driver's license has been sufficient.

If security is heightened, the procedures change a bit. If you have government id (if you work for NIH or other government institutions) you can simply show them and this should be adequate. If there is still a problem, have the guards call Dawnavan Davis at 301-295-3672 or 301-295-9664.

Continue straight past security and take a right on Palmer Road. Continue straight past the NAVY HOSPITAL(on your left). Follow Palmer past a parking garage, over a bridge, and past the Uniformed Services University (also called USUHS, it will be on your left).

After you pass the University, turn left, go back under the university into the parking garage.

Parking is free, park in any non-reserved space. Take the elevator to the first floor of building B. The lab is adjacent to the cafeteria on the first floor, and the door is marked B-1022, Dept. of Psychology and Anesthesiology.

BY CAR

FROM 495/Beltway

Take the Rockville Pike exit south. Rockville Pike is also called Wisconsin Ave and 355. South at this point is TOWARDS BETHESDA.

Follow 355 past Cedar Lane and through another stoplight. At Southwood Dr., (the second stoplight after Cedar Lane), turn left. This is the entrance to the National Naval Medical Center. If you get to Jones Bridge road you have gone too far!.

STOP AT THE SECURITY CHECK POINT

They will ask to see identification. Lately, a driver's license has been sufficient.

If security is heightened, the procedures change a bit. If you have government id (if you work for NIH or other government institutions) you can simply show them

and this should be adequate. If there is still a problem, have the guards call us at (301) 295-3672.

Continue straight past security and take a right on Palmer Road. Continue straight past the NAVY HOSPITAL(on your left). Follow Palmer past a parking garage, over a bridge, and past the Uniformed Services University (also called USUHS, it will be on your left).

After you pass the University, turn left, go back under the university into the parking garage.

Parking is free, park in any non-reserved space. Take the elevator to the first floor of building B. The lab is adjacent to the cafeteria on the first floor, and the door is marked B-1022, Dept. of Psychology and Anesthesiology.

Appendix P

PAYMENT INFORMATION FORM

Name   _____

Address   _____

City   _____ State _____ Zip Code _____

Home phone   _____ Work Phone _____

E-mail   _____ Alt. Phone _____

Social Security Number (required for payment): _____-_____-_____

Appendix Q

Depression Script

"Hello, _____ thanks for completing the depression questionnaire and mailing it back to us".

If individual scores below 13 and responds "0" to # 9 (suicide question):

It looks like your eligible to participate in the study. Are you still interested in taking part in the study?

If no. Ok. Thank you for your time and interest in the study.

If yes. "Great! What will happen next is that I'll be mailing you a packet that will include an Informed Consent document that explains the study, 12 surveys that will ask you questions about your body image, eating behaviors, and racial identity as well as directions to our campus and an authorization pass to get onto base".

"When you receive this packet, please call 301-295-3672 so that we may review the informed consent form and questionnaires with you. After you verbally consent to complete the study, I will notify you of the date and time of your schedule 90-minute interview. Please complete all the questionnaires prior to your 90-minute interview at the university. The questionnaires will be reviewed when you come in for your interview for completeness. The Informed Consent will also be reviewed again during your interview, and you will be asked to sign and date the Consent Form once all of your questions regarding the study have been answered.

Again, I want to thank you for your interest and participation in the study, if you have any questions, please feel free to contact me at 301-295-3672 any time. I will be contacting you by phone to remind you of your interview at the university as it approaches.

If individual scores $\geq$ 13 and/or scores above "0" on item #9 (suicide question), regardless of BDI-II total score:

"After reviewing your depression questionnaire, it was determined that you scored a _____, which indicates mild/moderate/or severe range of depressive symptoms.

And/or

"After reviewing your depression questionnaire, it was determined that you said a _____ in response to a question about suicidal thoughts

Unfortunately, because of your score on this questionnaire, you will not be eligible to participate in this study, we are looking for women with lower scores on this survey to take part in the study.

The questionnaire does not necessarily mean that you have clinical depression or suicidal because only a full diagnostic evaluation by a qualified provider is needed to diagnose depression and suicide. I will be providing you with a list of providers who could evaluate your symptoms more thoroughly. Others have found this list helpful in identifying services in the community.

I thank you for your time and interest in the study. If you have any questions, please feel free to contact me at 301-295-3672 any time".

Appendix R

Referral List

The following local providers have experience in treating depression. This is not meant to be an exhaustive list. Check your local yellow pages or ask your family physician for other providers.

DISTRICT OF COLUMBIA

 National Center for the Treatment of Phobias, 202-363-3900
Anxiety, and Depression   202-659-3660
Several Bd. Certified Psychiatrists and
Licensed Psychologists on staff.
1755 S Street NW
Washington, DC 20009

Richard Greenberg, M.D.   202-785-1836
Bd. Certified Psychiatrist
2112 F Street, NW
Washington, DC 20037

Margaret Jensvold, M.D.   301-984-5684
Bd. Certified Psychiatrist
1616 18th St. NW, suite 109
Washington, DC20009
Dupont Circle, Washington, DC - convenient to metro
(office also available in Bethesda)

David Goldstein, M.D.
Bd. Certified Psychiatrist
Private Practice - 202-232-5050
Dupont Circle, Washington, DC

Cynthia Stevens, M.D.   202-775-9091
Bd. Certified Psychiatrist and Psychoanalyst
3 Washington Circle, NW, Suite 405
Washington, DC (near Foggy Bottom Metro stop)

Mood Disorders Clinic   202-687-8609 or 8596
Georgetown University Hospital
(clinic offers more services and lower fees / pt. may be assigned to another psychiatrist---
Sliding scale, ask for Shelby Cook, MD in the resident's program)
Community Mental Health –South   202-673-9015
1905 E Street SE
Washington, DC 20003

Community Mental Health—North   202-576-6512 (for appt)
1125 Spring Rd. NW   202-576-7254 (general information)
Washington, DC 20010

American University Cognitive-Behavioral Clinic 202-885-1718
Psychology Department, American University
4400 Massachusetts Avenue, NW
Washington, DC 20016-8062
A low-cost clinic with a sliding scale of $10 - $40 per session.
Patients are seen by third-year graduate students in the clinical psychology Ph.D.
program, under the supervision of licensed psychologists who are on the faculty at AU.

Vincent Greenwood, Ph.D. 202-244-0260
Clinical psychologist, licensed
Specializes in cognitive-behavioral therapy.

Washington Center for Cognitive Therapy
5225 Connecticut Avenue, NW, Suite 501
Washington, DC 20015
Specialties: Depression, general anxiety, panic disorder,
obsessive-compulsive disorder, post-traumatic stress disorder.
Ages Treated: Adolescent to geriatric

Christine H. Carrington, Ph.D. 202-865-6611
Clinical psychologist, licensed
Specializes in cognitive-behavioral therapy.
2041 Georgia Avenue, NW
Washington, DC 20026
Specialties: Clinical depression, anxiety, substance abuse,
post- traumatic stress disorder, physiological stress disorders
Ages Treated: Adolescents-adults 18-65

Diane B. Arnkoff, Ph.D. 202-319-5764
Licensed Psychologist and Professor - Director
Specializing in cognitive-behavioral therapy.
The Catholic University of America
Department of Psychology
Washington, DC 20064
Populations served: Adults
Therapy formats provided: Individual therapy
Specializations: Depression, Anxiety Disorders, Panic Attacks, and Phobias.
arnkoff@cua.edu

Carol R. Glass Ph.D. 202-319-5764
Licensed Psychologist and Professor
Specializing in cognitive-behavioral therapy.

Department of Psychology
Catholic University of America
Washington, DC 20064
Populations served: Older Adults, Adults.
Therapy formats provided: Individual therapy.
Specializations: Depression, Anxiety Disorders, Panic Attacks, Phobias.
glass@cua.edu

Stephen J. Holland, Psy.D. 202-234-0903
Licensed Psychologist
Specializing in cognitive-behavioral therapy.
Capital Institute for Cognitive Therapy, LLC
1555 Connecticut Ave., NW
Suite 500
Washington, DC 20036
Populations served: Older Adults, Adults.
Therapy formats provided: Individual, Couples.
Specializations: Depression, Bipolar Disorder, Anxiety Disorders, Panic Attacks,
Phobias, Obsessive Compulsive Disorder, PTSD, Social Anxiety.
CognitiveDC@aol.com

Jeanne Miranda, Ph.D. 202-687-8650
Licensed Psychologist and Associate Professor
Georgetown University Medical School
3800 Reservoir Road NW
Kober-Cogan Bldg., Room 313
Washington, DC 20007
mirandaj@gunet.georgetown.edu
MARYLAND

Baltimore

Hinda Dubin, M.D. 410-328-6612
Psychiatrist who also specializes in cognitive-behavioral therapy.
University of Maryland
701 West Pratt Street
Baltimore, MD 21201
hdubin@umpsy.umaryland.edu

Kenneth L. Rothbaum, M.D. 410-433-7433
Psychiatrist who also specializes in cognitive-behavioral therapy.
The Quadrangle Building
Village of Cross Keys
2 Hamill Road, Suite 328E
Baltimore, MD 21210
krothbaum@pol.net

Golda Ginsburg, Ph.D. 410-955-1544
Licensed Psychologist

600 N. Wolfe Street
CMSC 340
Baltimore, MD 21287
gginsbu@jhmi.edu

Raymond DePaulo, M.D.   410-955-3246
Bd. Certified Psychiatrist   Consultation/ 2nd opinion only
Johns Hopkins Medical Institution
Dept. of Psychiatry and Behavioral Science
600 N. Wolfe Street, Myer Bldg. Rm 3-181
Baltimore, MD 21287-7381
JHU Outpatient Psychiatry Clinic   410-955-3861
(has sliding fee scale)
JHU psychiatrists in private practice 410-583-2610
Greenspring location
Bethesda / Rockville
Norman Epstein, Ph.D. 301-460-1285
Clinical psychologist, licensed
Specializes in cognitive-behavioral therapy.
14317 Yosomite Ct
Rockville, MD 20742
Also has an office in College Park 301-405-4013
Specialties: Couple's therapy; affective disorders; anxiety disorders.
Ages Treated: Adults, adolescents, (children in the context of family therapy.
ne4@umail.umd.edu

Susan Walen, Ph.D. 301-365-5959
Licensed Psychologist
Specializes in cognitive-behavioral therapy.
6529 Bradley Boulevard
Bethesda, MD 20817
Specialties: Depression, anxiety, sexual dysfunction, couples work and women's issues.
Ages Treated: Adults

Rezvan Ameli-Grillon, Ph.D. 301-594-1375
Licensed Psychologist
Specializing in cognitive-behavior therapy
Director of Clinical Training
NIMH, NIH
9000 Rockville Pike
Building 10 Room 35242
Bethesda, Maryland 20692
rezvan.ameli@nih.gov

Carol R. Glass Ph.D. 301-229-6413
Licensed Psychologist

Specializing in cognitive-behavior therapy.
5006 Rockmere Court
Bethesda, Maryland 20816
Specialties: Depression, Anxiety Disorders, Panic Attacks, Phobias.
glass@cua.edu

Lawrence I. Sank Ph.D. 301-229-3131
Licensed Psychologist
Specializes in cognitive-behavioral therapy.
Director, Center for Cognitive Therapy of Greater Washington
6310 Winston Drive
Bethesda, Maryland 20817
lsank@erols.com

Carolyn S. Shaffer Ph.D. 301-320-5268
Licensed Psychologist
Specializes in cognitive-behavioral therapy.
Co-Director of the Center for Cognitive Therapy of Greater Washington
6310 Winston Drive
Bethesda, Maryland 20817

Laura Primakoff, Ph.D. 301-897-5144
Licensed Psychologist
Specializes in cognitive-behavioral therapy.
10401 Old Georgetown Road, Suite 105
Bethesda, MD 20814
7825 Tuckerman Lane 301-299-6888
Suite 209
Potomac, MD 20854
Specialties: Depression, affective disorders, anxiety disorders single's issues and women's
issues.
Ages Treated: Adults

Brian Schulman, M.D.   301-654-4221
Bd. Certified Psychiatrist
4400 East-West Highway
Suite G
Bethesda, MD 20814

Bob Berberich, M.D.   301-656-6363
Bd. Certified Psychiatrist
Bethesda, MD

Sherry Goldman, M.D.   301-881-0855
Bd. Certified Psychiatrist
11404 Old Georgetown Road, Suite 105

Rockville, MD

Margaret Jensvold, M.D.   301-949-8742
5612 Shields Drive
Bethesda, MD 20817
Chevy Chase
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4221 Oakridge Lane
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Lawrence T. Dalton, Ed.D.
Licensed Psychologist
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5530 Wisconsin Avenue #915
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Specializations: Depression, Bipolar Disorder, Anxiety Disorders, Panic Attacks,
Phobias, Obsessive Compulsive Disorder.
Colesville
Montgomery County Mental Health 301-989-1910
Silver Spring
Montgomery County Mental Health 301-217-3200
8818 Georgia Avenue, Suite. 200
Silver Spring, MD 20910
Cheverly
Prince George's County Mental Health 301-386-0202
3003 Hospital Drive
Cheverly, MD 20785
Laurel
Laurel Mental Health   301-498-7500
8101 Sandy Spring Road, Suite 101
Laurel, MD 20707
Suitland
Southern Community Mental Health 301-817-3235
5408 Silver Hill Road, Suite 5300
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VIRGINIA

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Joseph Palombi, M.D.   703-237-9544
Bd. Certified Psychiatrist in Child, Adolescent,
and Adult Psychiatry Neuropsychiatric
Services of Greater Washington
7 Corners Place
Falls Church, 22044 (near Dominion Hospital)

David Charney, M.D.   703-683-6119
Bd. Eligible Psychiatrist
Howard Cohen, MD
Bd. Certified Psychiatrist
Olde Town, Alexandria, VA

Michael Hryniak, M.D.   703-448-3133
Bd. Certified Psychiatrist
3700 Joseph Ciewick Drive, Suite 402
Fairfax, VA 22033-1744
(also accepts referrals for ECT)

Fairfax County / Woodburn Mental Health 703-207-7730
3340 Woodburn Road
Annandale, VA 22003
(1-2 week wait for appointment)

VA Tech Center for Family Services 703-698-6033
North VA Graduate Center, Virginia Tech
2990 Telestar Court
Falls Church, VA 22042-1287
(Will not take severe cases,
i.e., Bipolar I or schizophrenia)

John Riskind, Ph.D. 703-280-8060
Clinical Psychologist, Licensed
Specializes in cognitive-behavioral therapy.
3921 Old Lee Highway , Suite 73A
Fairfax, VA 22030
Specialties: Anxiety, Depression, Panic, Obsessive
Compulsive Disorder, Post Traumatic Stress
Disorder; Marital Therapy; Singles Problems; Loneliness
Ages Treated: 13 and up

Karen Kingsley, Ph.D. 703-481-8479

Licensed Psychologist
Specializes in cognitive-behavioral therapy.
11250 Roger Bacon Drive, Suite 12
Reston, VA 22090
Specialties: Treatment of depression, anxiety, couples
therapy, adolescent girls
Ages Treated: Girls 12-18, adults

Arlington Mental Health Services   703-358-5150

Northern VA Family Services   703-689-0208

EDI

Read each question and select the one answer that best applies to you. There are no right or wrong answers. Please read each question carefully.

1= Always   2= Usually   3= Often   4= Sometimes   5= Rarely   6= Never

1. I eat sweets and carbohydrates without feeling nervous   _____

2. I think about dieting   _____

3. I feel extremely guilty about overeating   _____

4. I am terrified of gaining weight   _____

5. I exaggerate or magnify the importance of my weight   _____

6. I am preoccupied with the desire to be thinner   _____

7. If I gain a pound I worry that I will keep gaining   _____

8. I eat when I am upset   _____

9. I stuff myself with food   _____

10. I have gone on eating binges where I have felt that I could not stop _____

11. I think about bingeing (overeating)   _____

12. I eat moderately in front of others and stuff myself when they are gone _____

13. I have the thought of trying to vomit in order to lose weight   _____

14. I eat or drink in secrecy   _____

15. I think that my stomach is too big   _____

16. I think my thighs are too large   _____

17. I think my stomach is just the right size   _____

18. I feel satisfied with the shape of my body   _____

19. I like the shape of my buttocks   _____

20. I worry that my hips are too big   _____

21. I think my thighs are just the right size   _____

22. I think that my buttocks are too large   _____

23. I think that my hips are just the right size   _____

THE MBSRQ

INSTRUCTIONS--PLEASE READ CAREFULLY

The following pages contain a series of statements about how people might think, feel, or behave. You are asked to indicate <u>the extent to which each statement pertains to you personally.</u>

Your answers to the items in the questionnaire are anonymous, so please do not write your name on any of the materials. In order to complete the questionnaire, read each statement carefully and decide how much it pertains to you personally. Using a scale like the one below, indicate your answer by entering it to the left of the number of the statement

---

EXAMPLE:

_____   I am usually in a good mood.

In the blank space, enter a **1** if you **definitely disagree** with the statement;

enter a **2** if you **mostly disagree**;

enter a **3** if you **neither agree nor disagree**;

enter a **4** if you **mostly agree**;

or enter a **5** if you **definitely agree** with the statement.

There are no right or wrong answers. Just give the answer that is most accurate for you. Remember, your responses are confidential, so please be <u>completely honest</u> and answer all items.

(Duplication and use of the MBSRQ only by permission of
Thomas F. Cash, Ph.D., Department of Psychology,
Old Dominion University, Norfolk, VA 23529)

1	2	3	4	5
Definitely Disagree	**Mostly Disagree**	**Neither Agree Nor Disagree**	**Mostly Agree**	**Definitely Agree**

_____ 1. Before going out in public, I always notice how I look.

_____ 2. I am careful to buy clothes that will make me look my best.

_____ 3. I would pass most physical-fitness tests.

_____ 4. It is important that I have superior physical strength.

_____ 5. My body is sexually appealing.

_____ 6. I am not involved in a regular exercise program.

_____ 7. I am in control of my health.

_____ 8. I know a lot about things that affect my physical health.

_____ 9. I have deliberately developed a healthy lifestyle.

_____ 10. I constantly worry about being or becoming fat.

_____ 11. I like my looks just the way they are.

_____ 12. I check my appearance in a mirror whenever I can.

_____ 13. Before going out, I usually spend a lot of time getting ready.

_____ 14. My physical endurance is good.

_____ 15. Participating in sports is unimportant to me.

_____ 16. I do not actively do things to keep physically fit.

_____ 17. My health is a matter of unexpected ups and downs.

_____ 18. Good health is one of the most important things in my life.

_____ 19. I don't do anything that I know might threaten my health.

1	2	3	4	5
Definitely Disagree	**Mostly Disagree**	**Neither Agree Nor Disagree**	**Mostly Agree**	**Definitely Agree**

_____ 20. I am very conscious of even small changes in my weight.

_____ 21. Most people would consider me good-looking.

_____ 22. It is important that I always look good.

_____ 23. I use very few grooming products.

_____ 24. I easily learn physical skills.

_____ 25. Being physically fit is not a strong priority in my life.

_____ 26. I do things to increase my physical strength.

_____ 27. I am seldom physically ill.

_____ 28. I take my health for granted.

_____ 29. I often read books and magazines that pertain to health.

_____ 30. I like the way I look without my clothes on.

_____ 31. I am self-conscious if my grooming isn't right.

_____ 32. I usually wear whatever is handy without caring how it looks.

_____ 33. I do poorly in physical sports or games.

_____ 34. I seldom think about my athletic skills.

_____ 35. I work to improve my physical stamina.

_____ 36. From day to day, I never know how my body will feel.

_____ 37. If I am sick, I don't pay much attention to my symptoms.

_____ 38. I make no special effort to eat a balanced and nutritious diet.

1	2	3	4	5
Definitely Disagree	**Mostly Disagree**	**Neither Agree Nor Disagree**	**Mostly Agree**	**Definitely Agree**

_____ 39. I like the way my clothes fit me.

_____ 40. I don't care what people think about my appearance.

_____ 41. I take special care with my hair grooming.

_____ 42. I dislike my physique.

_____ 43. I don't care to improve my abilities in physical activities.

_____ 44. I try to be physically active.

_____ 45. I often feel vulnerable to sickness.

_____ 46. I pay close attention to my body for any signs of illness.

_____ 47. If I'm coming down with a cold or flu, I just ignore it and go on as usual.

_____ 48. I am physically unattractive.

_____ 49. I never think about my appearance.

_____ 50. I am always trying to improve my physical appearance.

_____ 51. I am very well coordinated.

_____ 52. I know a lot about physical fitness.

_____ 53. I play a sport regularly throughout the year.

_____ 54. I am a physically healthy person.

_____ 55. I am very aware of small changes in my physical health.

_____ 56. At the first sign of illness, I seek medical advice.

_____ 57. I am on a weight-loss diet.

For the remainder of the items use the response scale given with the item, and enter your answer in the space beside the item.

_____ 58. I have tried to lose weight by fasting or going on crash diets.

1. Never
2. Rarely
3. Sometimes
4. Often
5. Very Often

_____ 59. I think I am:

1. Very Underweight
2. Somewhat Underweight
3. Normal Weight
4. Somewhat Overweight
5. Very Overweight

_____ 60. From looking at me, most other people would think I am:

1. Very Underweight
2. Somewhat Underweight
3. Normal Weight
4. Somewhat Overweight
5. Very Overweight

61-69. Use this 1 to 5 scale to indicate <u>how dissatisfied or satisfied you are</u> with each of the following areas or aspects of your body:

1	2	3	4	5
Very Dissatisfied	Mostly Dissatisfied	Neither Satisfied Nor Dissatisfied	Mostly Satisfied	Very Satisfied

_____ 61. Face (facial features, complexion)

_____ 62. Hair (color, thickness, texture)

_____ 63. Lower torso (buttocks, hips, thighs, legs)

_____ 64. Mid torso (waist, stomach)

_____ 65. Upper torso (chest or breasts, shoulders, arms)

_____ 66. Muscle tone

_____ 67. Weight

_____ 68. Height

_____ 69. Overall appearance

The Beliefs about Appearance Questionnaire
(ASI-R Short Form)

The statements below are beliefs that people may or may not have about their physical appearance and its influence on life. Decide on the extent to which you personally **disagree or agree** with each statement and enter a number from 1 to 5 in the space on the left. There are no right or wrong answers. Just be truthful about your personal beliefs.

1	2	3	4	5
Strongly Disagree	Mostly Disagree	Neither Agree or Disagree	Mostly Agree	Strongly Agree

_____ 1. I spend little time on my physical appearance.

_____ 2. When I see good-looking people, I wonder about how my own looks measure up.

_____ 3. I try to be as physically attractive as I can be.

_____ 4. I have never paid much attention to what I look like.

_____ 5. I seldom compare my appearance to that of other people I see.

_____ 6. I often check my appearance in a mirror just to make sure I look okay.

_____ 7. When something makes me feel good or bad about my looks, I tend to dwell on it.

_____ 8. If I like how I look on a given day, it's easy to feel happy about other things.

_____ 9. If somebody had a negative reaction to what I look like, it wouldn't bother me.

_____ 10. When it comes to my physical appearance, I have high standards.

_____ 11. My physical appearance has had little influence on my life.

_____ 12. Dressing well is not a priority for me.

1	2	3	4	5
Strongly Disagree	Mostly Disagree	Neither Agree or Disagree	Mostly Agree	Strongly Agree

_____ 13. When I meet people for the first time, I wonder what they think about how I look.

_____ 14. In my everyday life, lots of things happen that make me think about what I look like.

_____ 15. If I dislike how I look on a given day, it's hard to feel happy about other things.

_____ 16. I fantasize about what it would be like to be better looking than I am.

_____ 17. Before going out, I make sure that I look as good as I possibly can.

_____ 18. What I look like is an important part of who I am.

_____ 19. By controlling my appearance, I can control many of the social and emotional events in my life.

_____ 20. My appearance is responsible for much of what's happened to me in my life.

Figure Rating Scale

<u>Using the attached figures</u> for each of the following questions, choose the figure that most applies for you. Choose only one figure for each question.

1. Which figure looks most like you look currently?

    1   2   3   4   5   7   8   9

2. Which figure looks most like you would like to look?

    1   2   3   4   5   7   8   9

3. Which figure looks most like your family and friends would like you to look?

    1   2   3   4   5   7   8   9

4. Which figure looks most like your significant other would like you to look?

    1   2   3   4   5   7   8   9

5. Which figure looks most like the opposite sex would like you to look?

    1   2   3   4   5   7   8   9

6. Which figure is most attractive?

    1   2   3   4   5   7   8   9

7. Which figure is least attractive?

    1   2   3   4   5   7   8   9

8. Which figure is most healthy?

    1   2   3   4   5   7   8   9

9. Which figure is least healthy?

    1   2   3   4   5   7   8   9